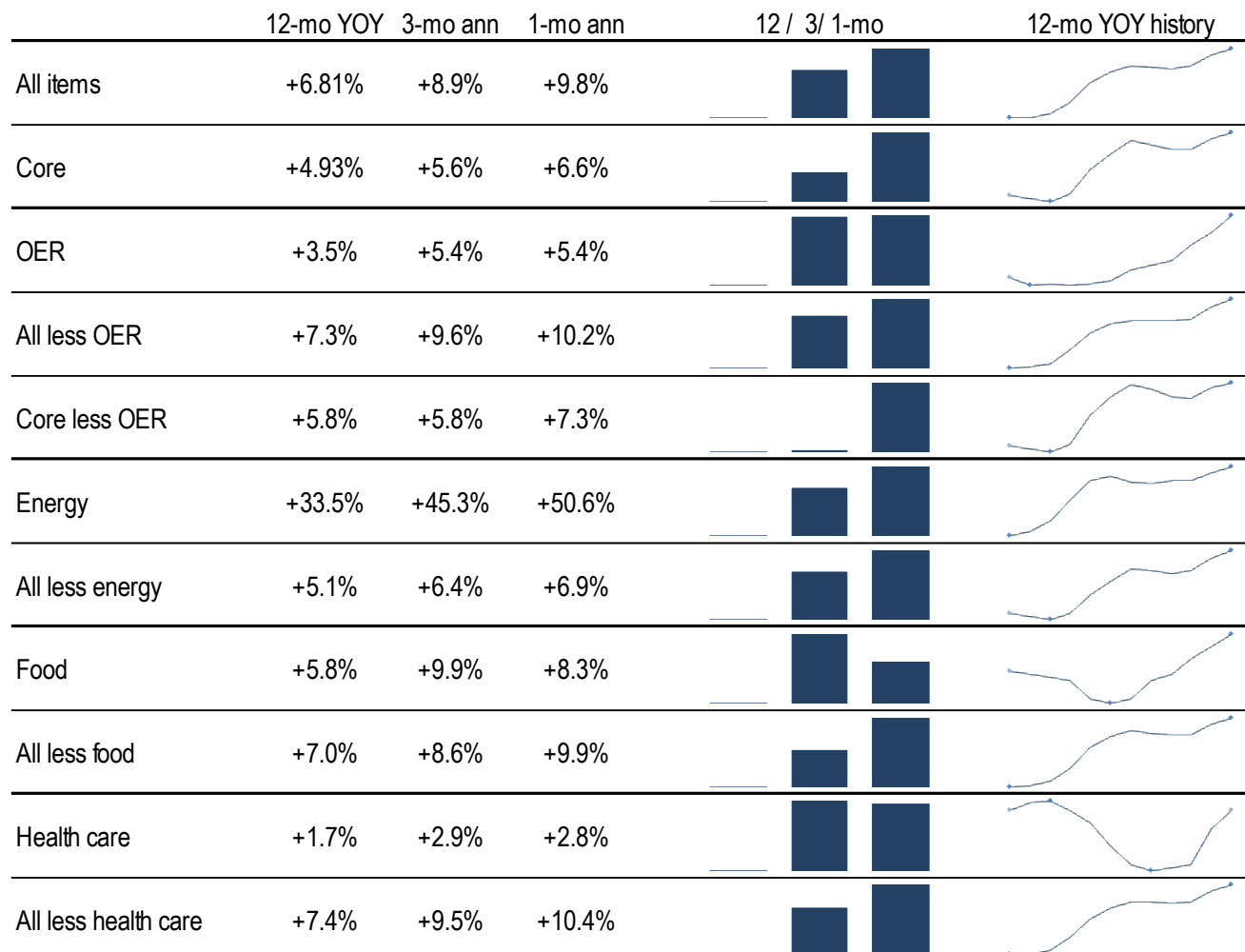


Data Insights: Consumer Price Index, Producer Price Index

Friday, December 10, 2021

Today's CPI data: what you need to know



Source: BLS Consumer Price Index, TrendMacro calculations

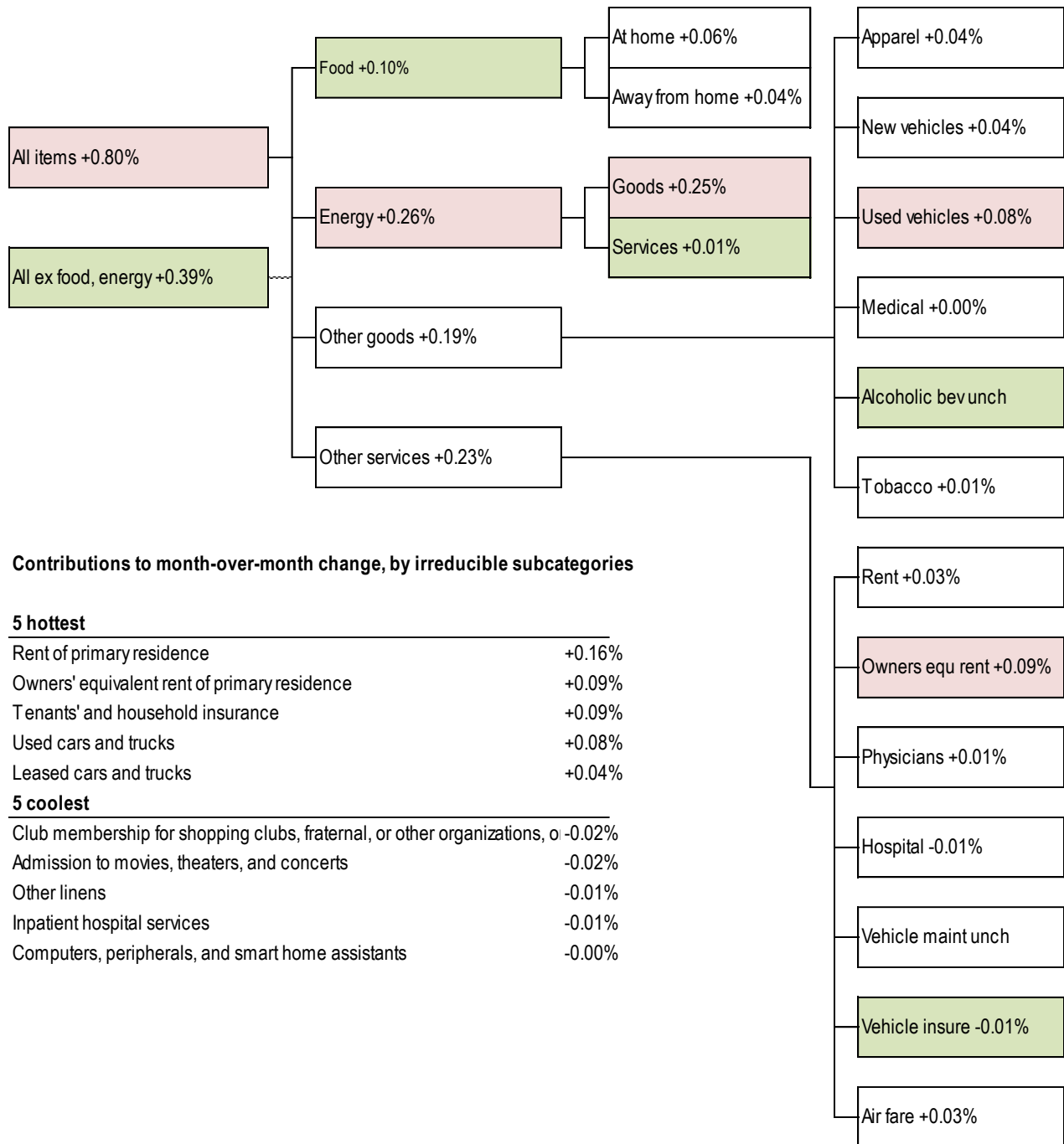
For more information contact us:

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 Thomas Demas: 704 552 3625 tdemas@trendmacro.com

Deconstructing today's CPI data: what explains this month's inflation?

Weighted contribution by subcategory

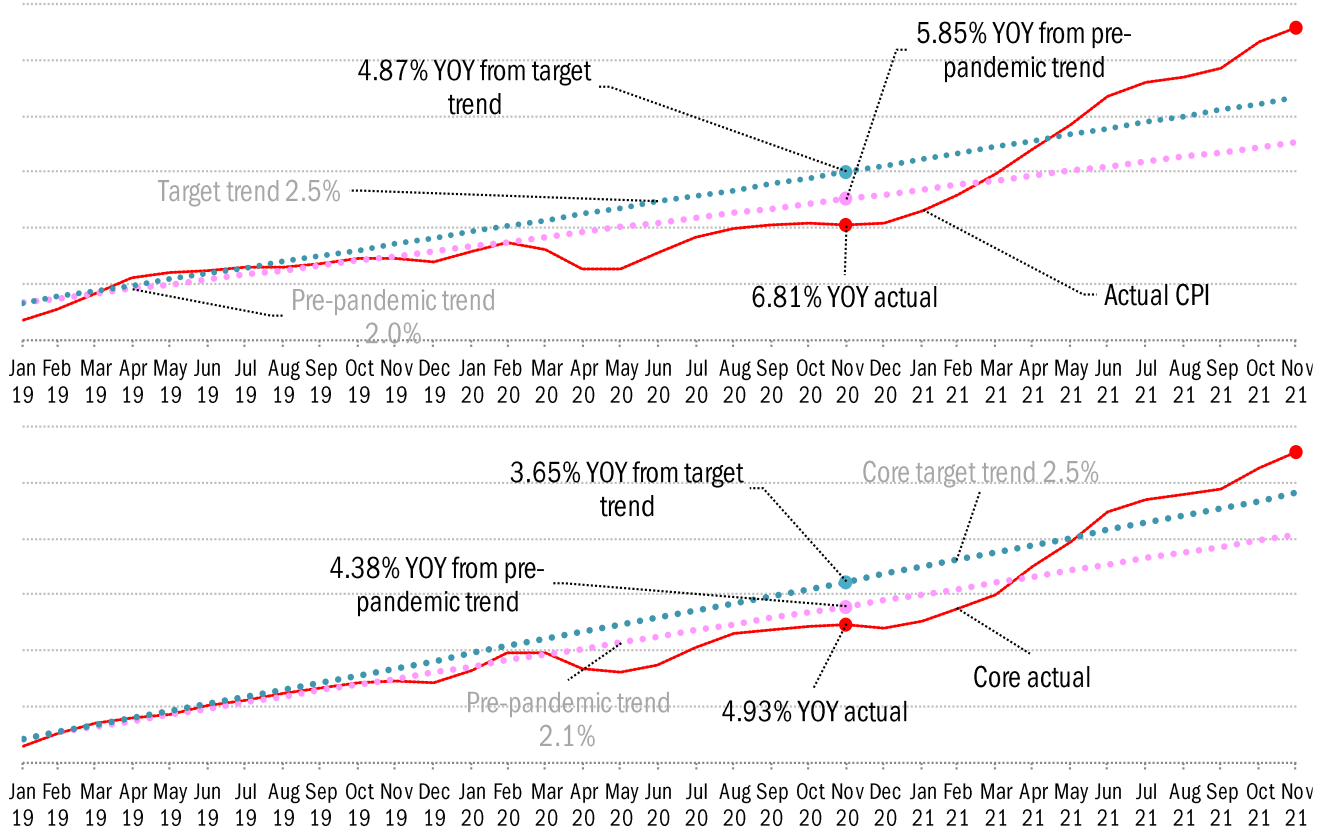
Biggest change per detail-level: ■ positive ■ negative



Source: BLS Consumer Price Index, TrendMacro calculations

"Transitory," "base-effect" or "optimal control?"

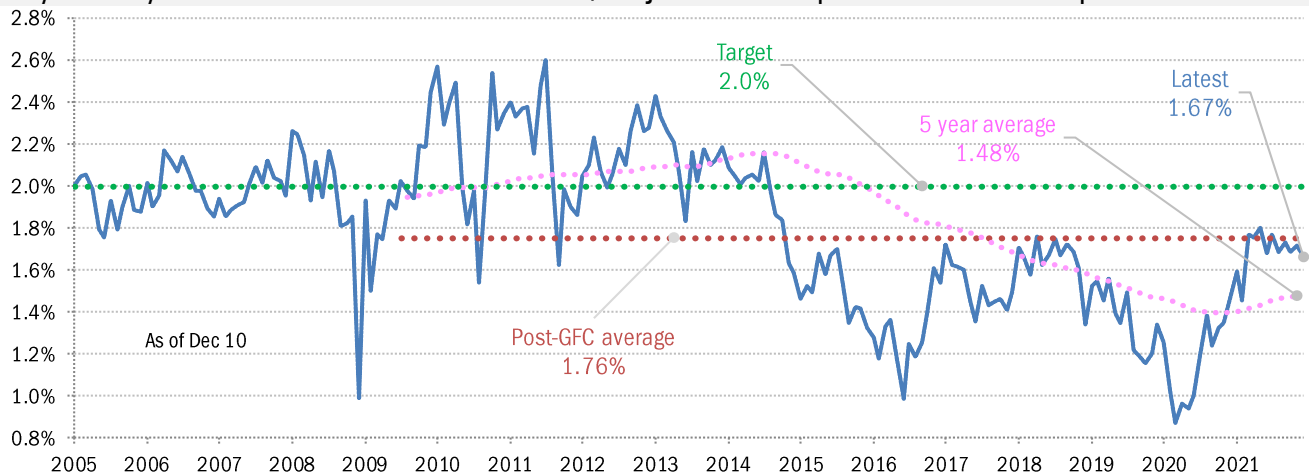
This month's data in context with the pre-pandemic and ideal 12-month trends



Source: Bureau of Labor Statistics, TrendMacro calculations

Unhinged? Or too hinged?

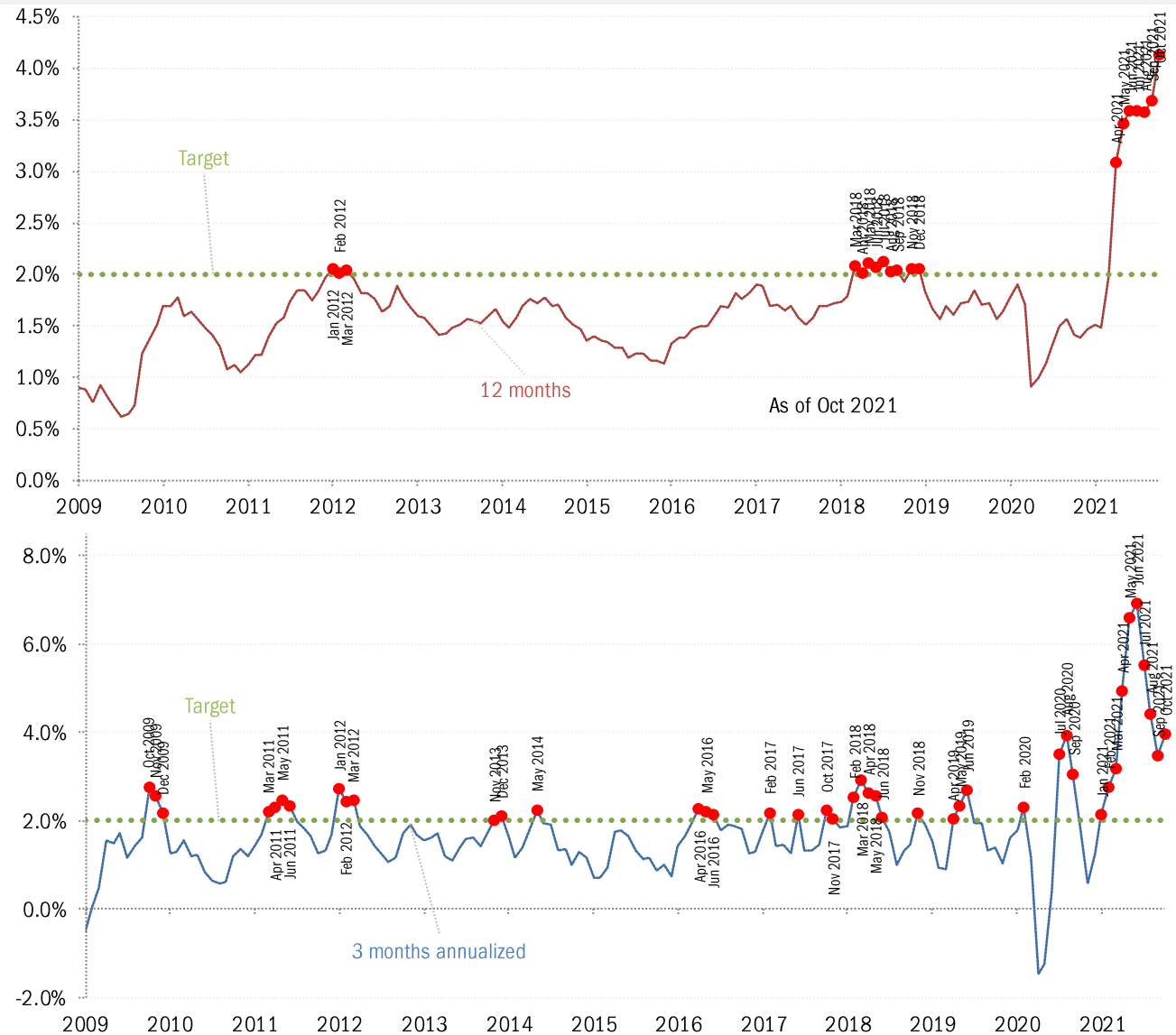
5-year 5-year-forward TIPS breakeven, adjusted 50 bp down to PCE equivalent



Source: Bloomberg, TrendMacro calculations

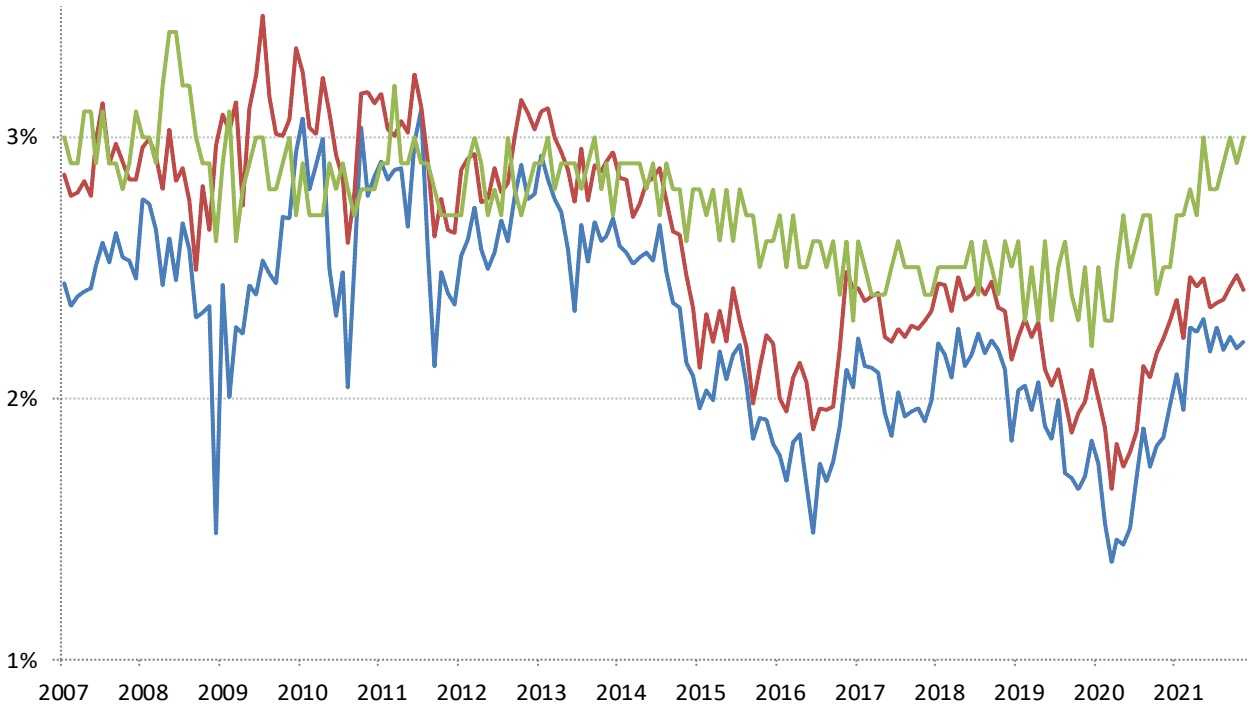
The Fed-eye view of inflation (or lack thereof)

Core PCE Price Index



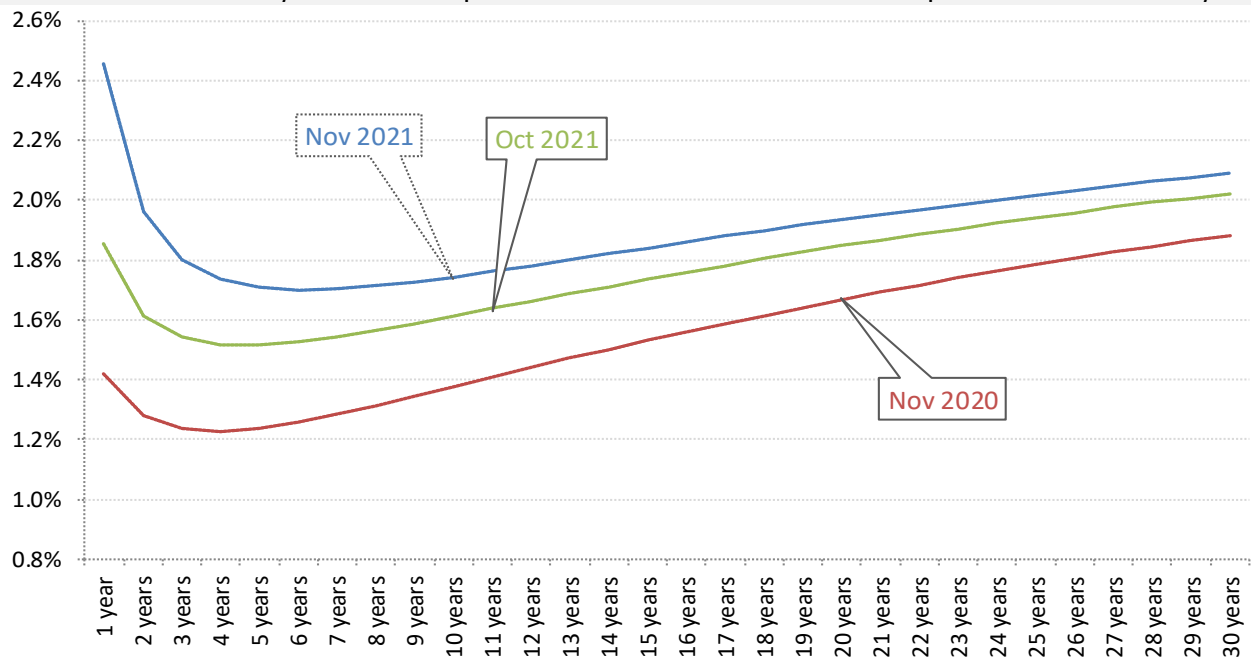
Source: Bureau of Economic Analysis, TrendMacro calculations

Implied 5-year inflation, 5 years forward — TIPS — Swaps — U. Michigan Survey



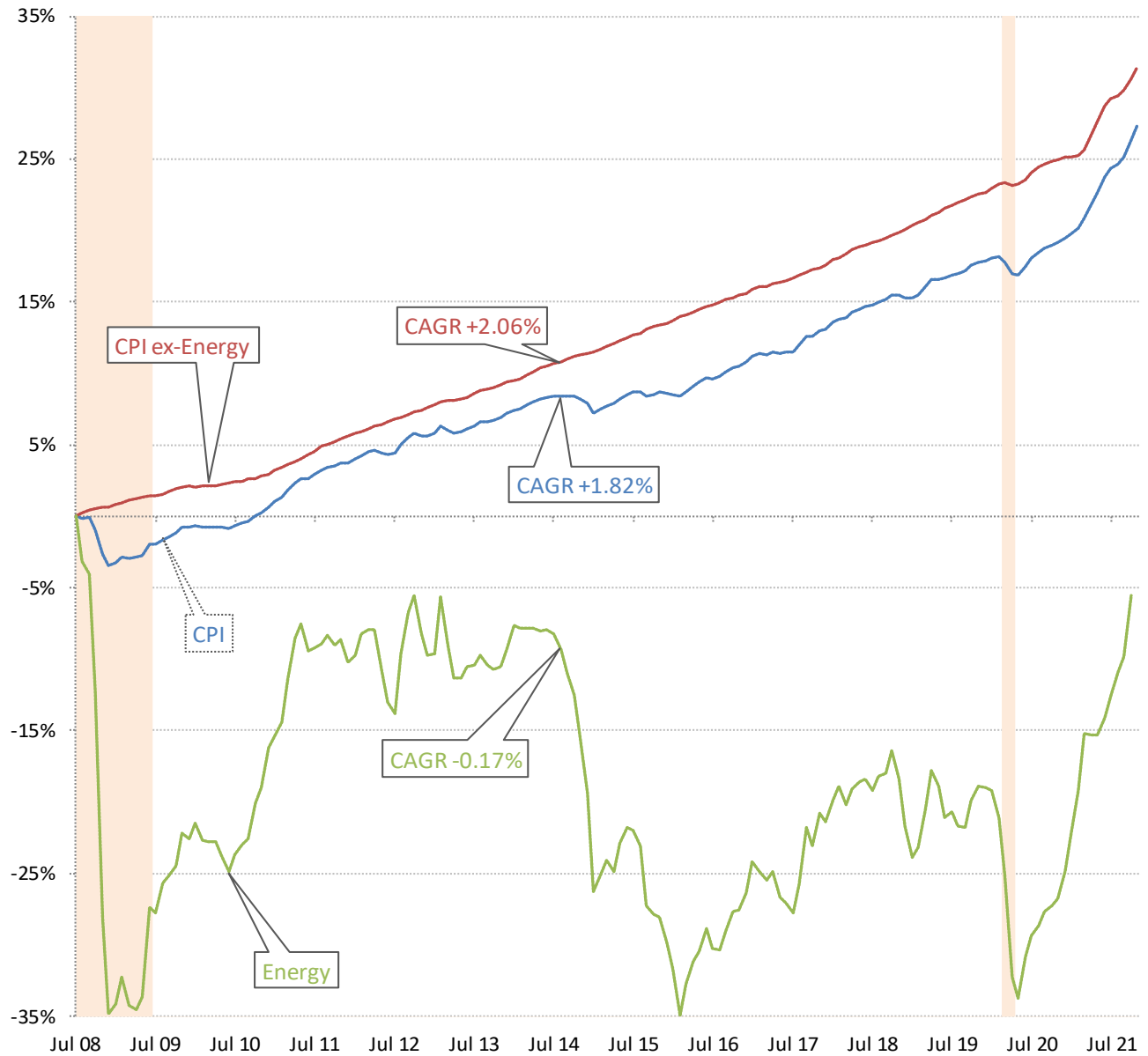
Source: Bloomberg, TrendMacro calculations

Modeled inflation yield curve, per annum — Based on swaps, forecasts and yields



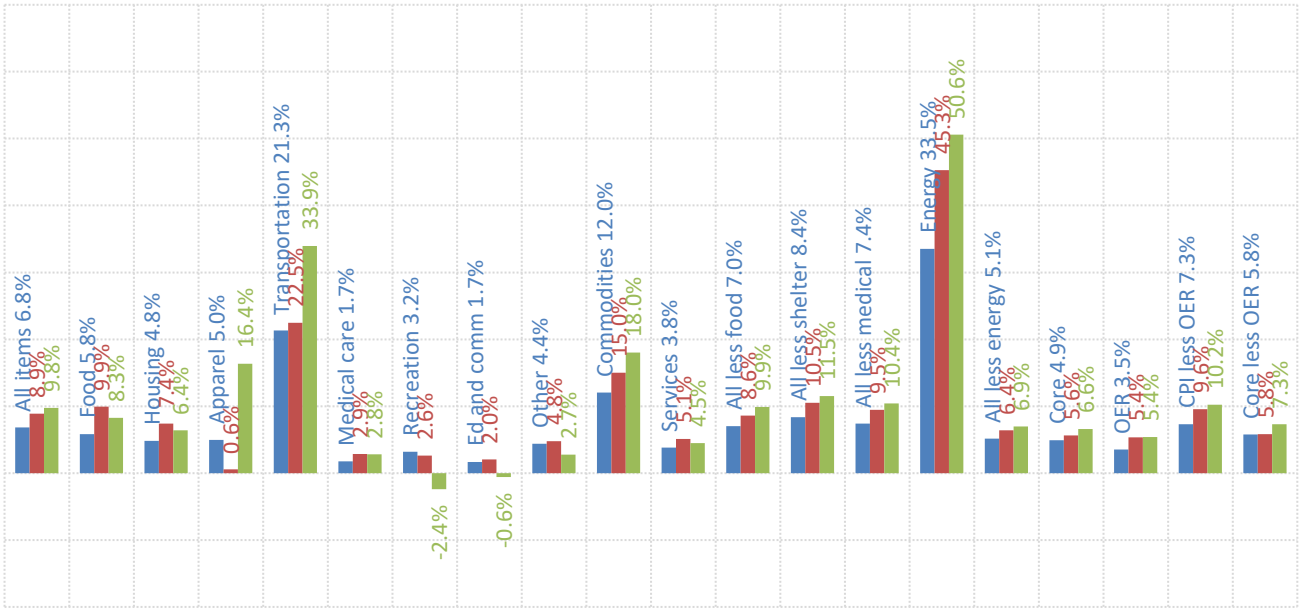
Source: [Cleveland Fed](#), TrendMacro calculations

The deflation delusion: it's all about oil, and always has been
Cumulative growth of CPI from July 2008, the all-time high oil price



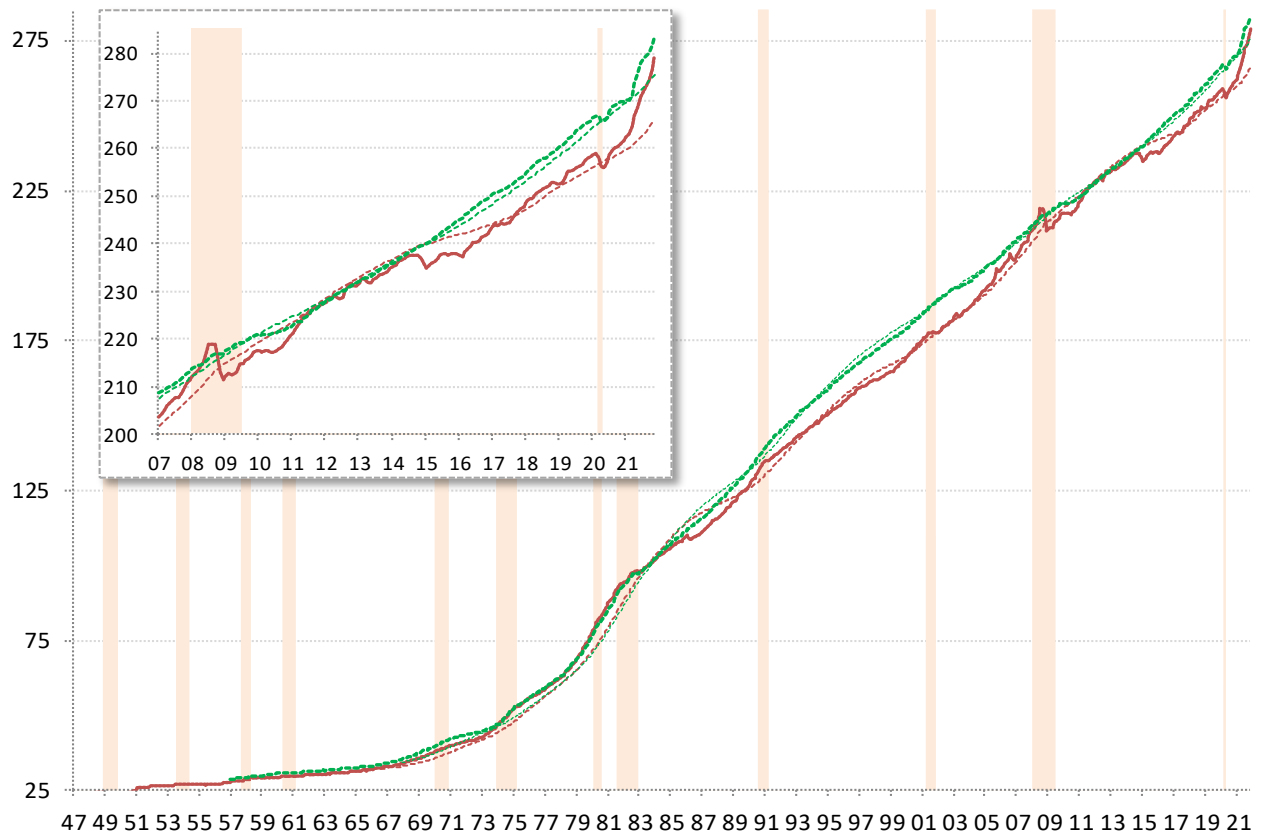
Source: Bloomberg, TrendMacro calculations

US CPI inflation by sector (SAAR) ■ 12-month ■ 3-month ■ 1-month



Source: BLS Consumer Price Index, TrendMacro calculations

US CPI Core — Level ... 20-year trend ■ Recession



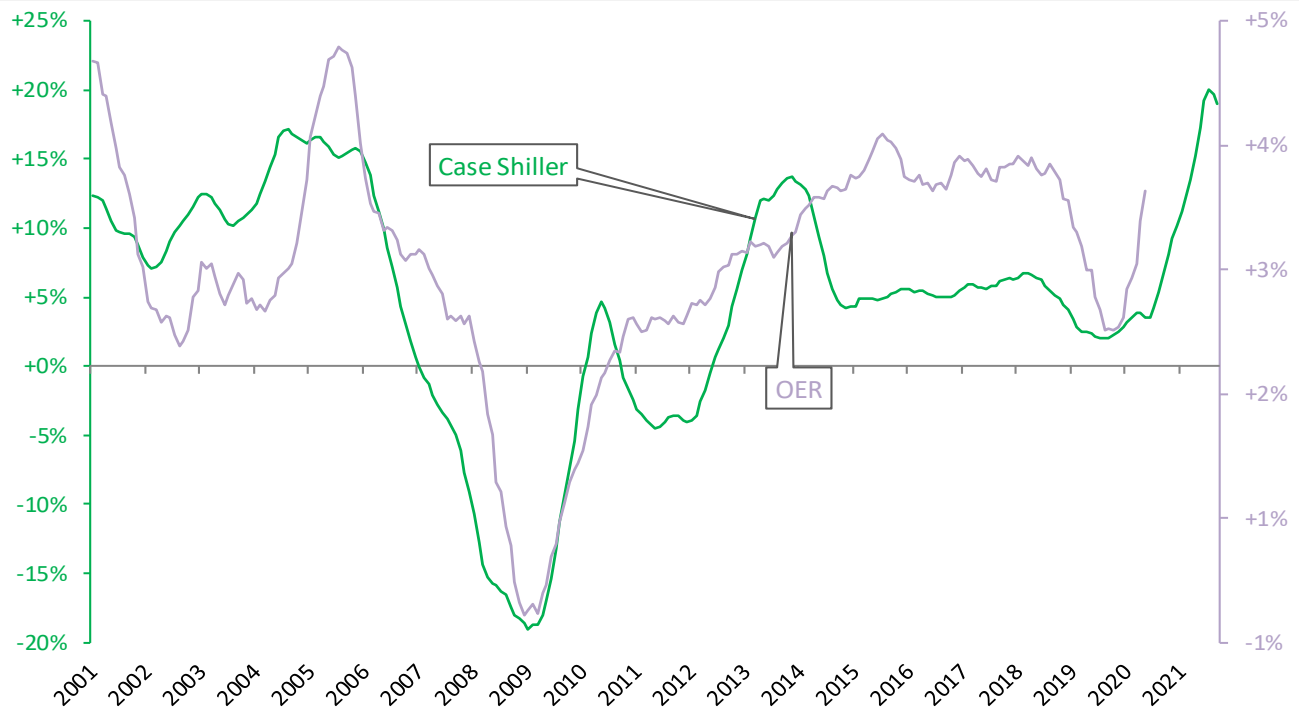
Source: BLS Consumer Price Index, TrendMacro calculations

Housing leads US CPI

Year-over-year change

— Case Shiller 20-city avg

— Owner's equivalent rent CPI component, 18-mo lag



Source: BLS, Standard & Poor's Case Shiller, TrendMacro calculations

The world is flat: the vanishing Phillips Curve

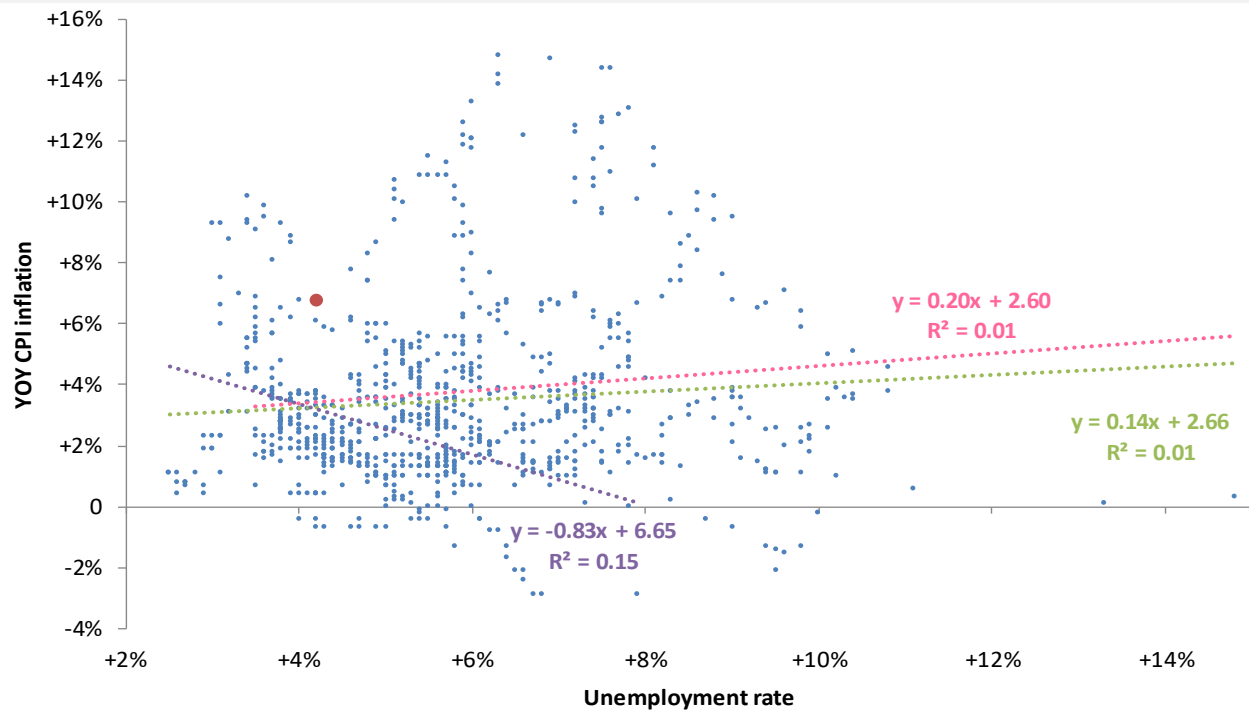
● Latest

Linear trend:

--- Pre-74

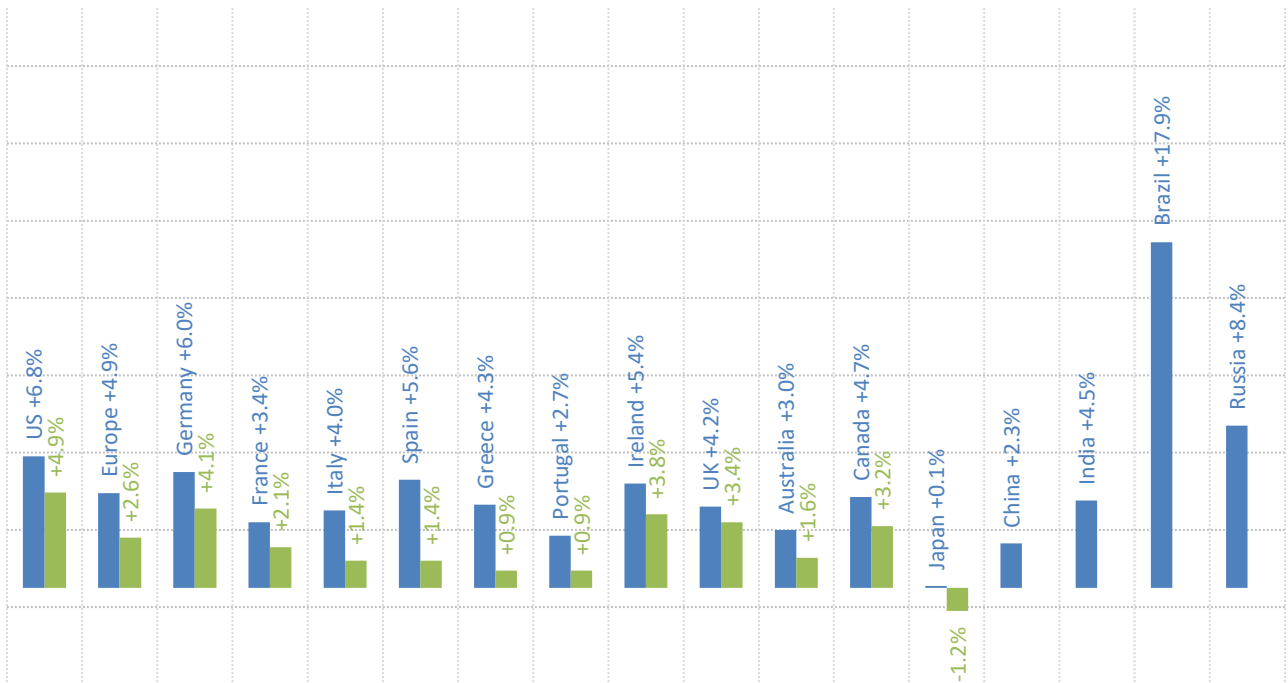
--- Post-74

--- All



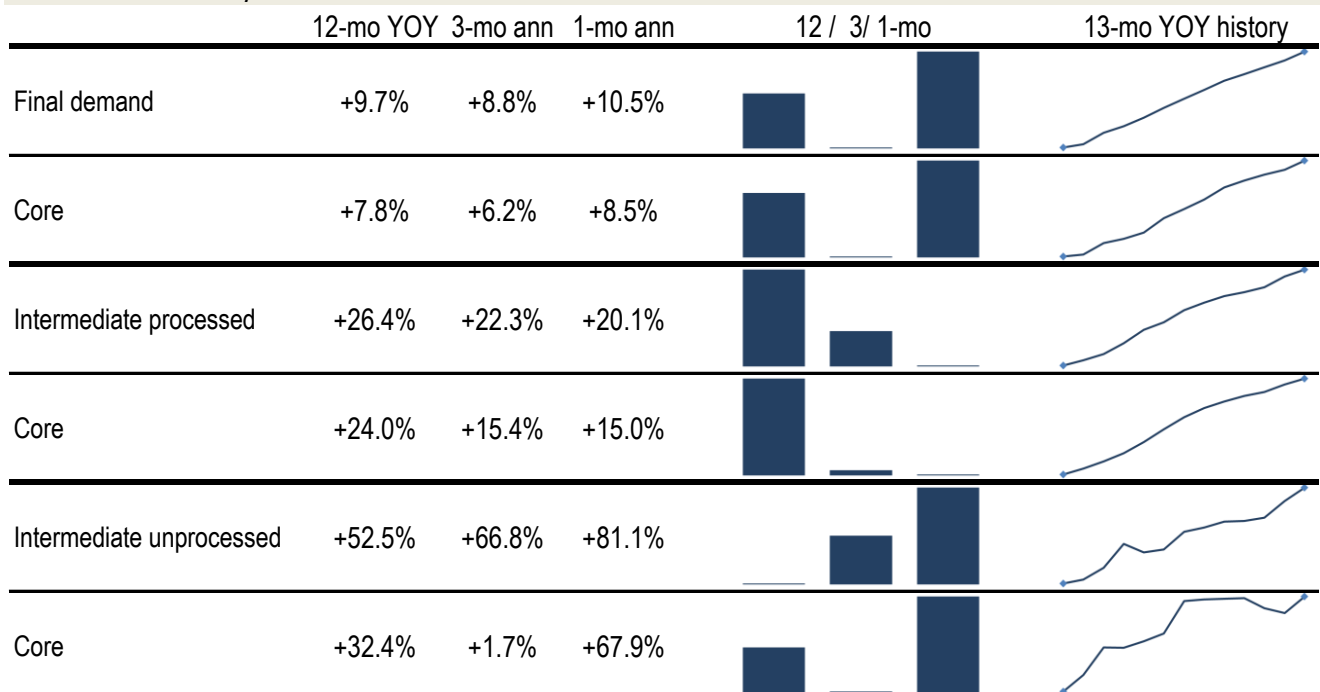
Source: BLS Consumer Price Index, Current Population Survey

Major economies CPI, year on year



Source: Respective Statistical agencies, TrendMacro calculations

PPI data: what you need to know



























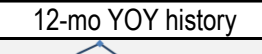


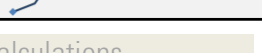




Source: BLS Producer Price Index, TrendMacro calculations

Data Insights: Unconventional Consumer Price Indices

Friday, December 10, 2021

Today's unconventional CPI data: what you need to know

	12-mo YOY	3-mo ann	1-mo ann	12 / 3 / 1-mo	12-mo YOY history
<i>All items</i>	+6.8%	+8.9%	+9.8%		
<i>Core</i>	+4.9%	+5.6%	+6.6%		
<i>All items NSA</i>	+6.8%	+6.6%	+6.1%		
<i>Core NSA</i>	+4.9%	+4.7%	+5.0%		
<i>PCE deflator Oct</i>	+5.0%	+5.6%	+7.8%		
<i>Core PCE deflator Oct</i>	+4.1%	+4.0%	+5.2%		
Trimmed mean PCE Oct	+2.6%	+3.9%	+4.2%		
Median CPI	+3.5%	+6.1%	+5.6%		
Trimmed mean CPI	+4.6%	+7.1%	+6.5%		
Sticky CPI	+3.4%	+4.7%	+4.0%		
<i>Sticky core CPI</i>	+3.2%	+4.4%	+3.8%		
Flexible CPI	+17.9%	+21.2%	+26.1%		
<i>Flexible core CPI</i>	+16.6%	+13.0%	+22.4%		
Underlying, prices Oct	+4.4%				
<i>Underlying, all Oct</i>	+4.3%				
	YOY change	3-mo	1-mo	12 / 3 / 1-mo	12-mo YOY history
<i>ISM Manu prices paid</i>	+17	+3	-3		
<i>ISM Services prices paid</i>	+18	+7	-1		

Source: BLS, BEA, ISM, Cleveland Fed, Atlanta Fed, New York Fed, Dallas Fed, TrendMacro calculations

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Data Insights: Federal Reserve

Wednesday, November 3, 2021

Today's FOMC statement: how the language changed from prior meeting

~~September 22~~ November 03, 2021

Federal Reserve issues FOMC statement

The Federal Reserve is committed to using its full range of tools to support the U.S. economy in this challenging time, thereby promoting its maximum employment and price stability goals.

With progress on vaccinations and strong policy support, indicators of economic activity and employment have continued to strengthen. The sectors most adversely affected by the pandemic have improved in recent months, but the summer's rise in COVID-19 cases has slowed their recovery. Inflation is elevated, largely reflecting factors that are expected to be transitory factors. Supply and demand imbalances related to the pandemic and the reopening of the economy have contributed to sizable price increases in some sectors. Overall financial conditions remain accommodative, in part reflecting policy measures to support the economy and the flow of credit to U.S. households and businesses.

The path of the economy continues to depend on the course of the virus. Progress on vaccinations will likely continue to reduce the effects of the public health crisis on the economy, but risks and an easing of supply constraints are expected to support continued gains in economic activity and employment as well as a reduction in inflation. Risks to the economic outlook remain.

The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. With inflation having run persistently below this longer-run goal, the Committee will aim to achieve inflation moderately above 2 percent for some time so that inflation averages 2 percent over time and longer-term inflation expectations remain well anchored at 2 percent. The Committee expects to maintain an accommodative stance of monetary policy until these outcomes are achieved. The Committee decided to keep the target range for the federal funds rate at 0 to 1/4 percent and expects it will be appropriate to maintain this target range until labor market conditions have reached levels consistent with the Committee's assessments of maximum employment and inflation has risen to 2 percent and is on track to moderately exceed 2 percent for some time. Last In light of the substantial further progress the economy has made toward the Committee's goals since last December, the Committee indicated that it would continue to decided to begin reducing the monthly pace of its net asset purchases by \$10 billion for Treasury securities and \$5 billion for agency mortgage-backed securities. Beginning later this month, the Committee will increase its holdings of Treasury securities by at least \$8970 billion per month and of agency mortgage-backed securities by at least \$4035 billion per month until substantial further progress has been made toward its maximum employment and price stability goals. Since then, the economy has made progress toward these goals. If progress continues broadly as expected, the Committee. Beginning in December, the Committee will increase its holdings of Treasury securities by at least \$60 billion per month and of agency mortgage-backed securities by at least \$30 billion per month. The Committee judges that a moderation similar reductions in the pace of asset purchases may soon be warranted. These net asset purchases help will likely be appropriate each month, but it is prepared to adjust the pace of purchases if warranted by changes in the economic outlook. The Federal Reserve's ongoing purchases and holdings of securities will continue to foster smooth market functioning and accommodative financial conditions, thereby supporting the flow of credit to households and businesses.

In assessing the appropriate stance of monetary policy, the Committee will continue to monitor the implications of incoming information for the economic outlook. The Committee would be prepared to adjust the stance of monetary policy as appropriate if risks emerge that could impede the attainment of the Committee's goals. The Committee's assessments will take into account a wide range of information, including readings on public health, labor market conditions, inflation pressures and inflation expectations, and financial and international developments.

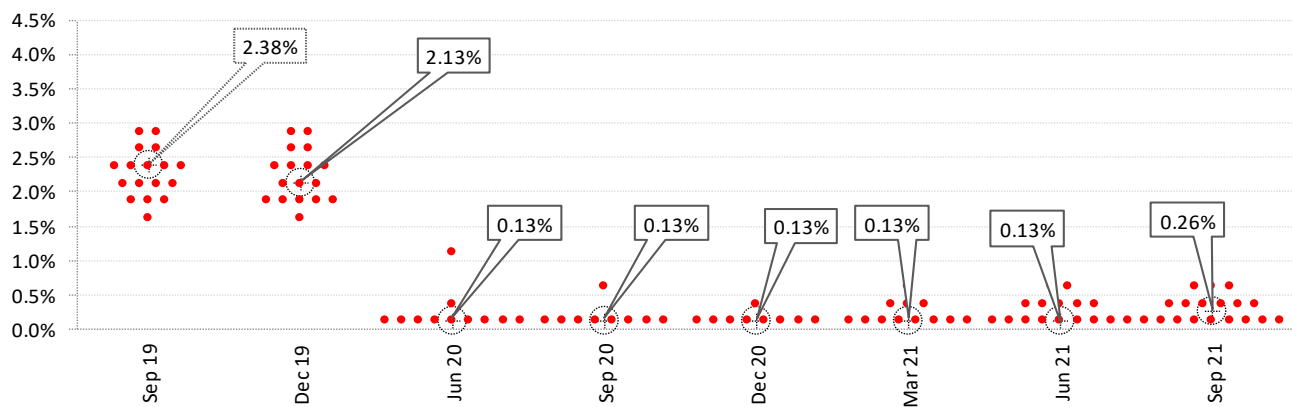
Voting for the monetary policy action were Jerome H. Powell, Chair; John C. Williams, Vice Chair; Thomas I. Barkin; Raphael W. Bostic; Michelle W. Bowman; Lael Brainard; Richard H. Clarida; Mary C. Daly; Charles L. Evans; Randal K. Quarles; and Christopher J. Waller.

Source: FOMC, TrendMacro analysis

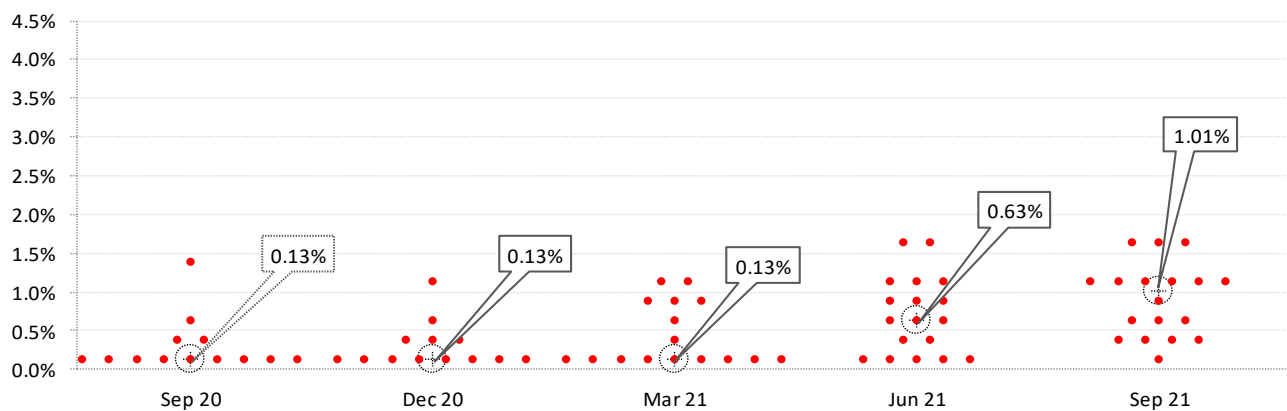
Tracking the "dotplots" year by year *As of September 22 FOMC*

FOMC participants' estimate of "appropriate" target fed funds rate ● Vote by participant ○ Median

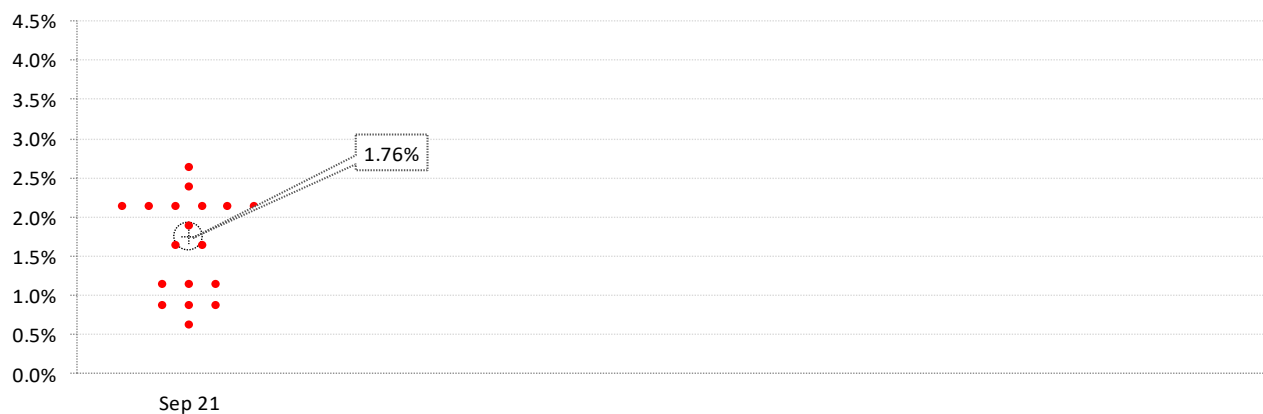
For year-end 2022



For year-end 2023



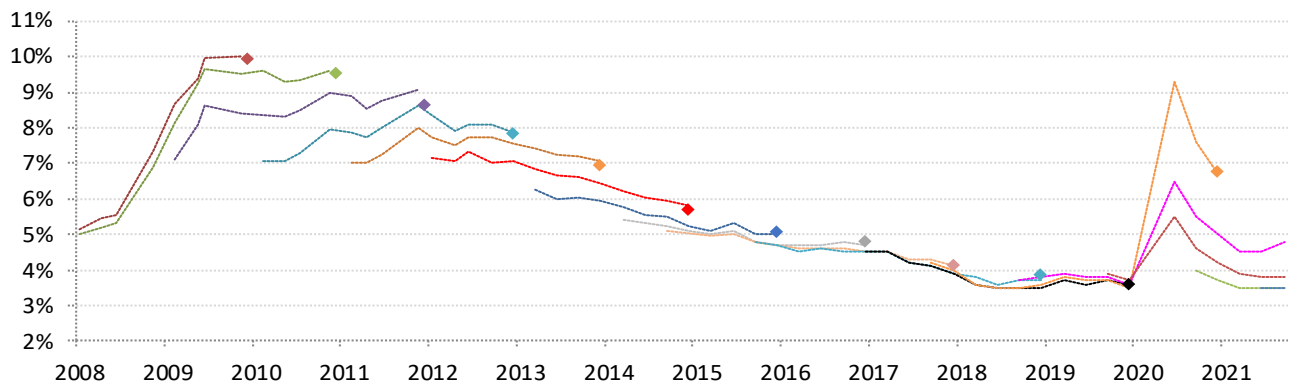
For year-end 2024



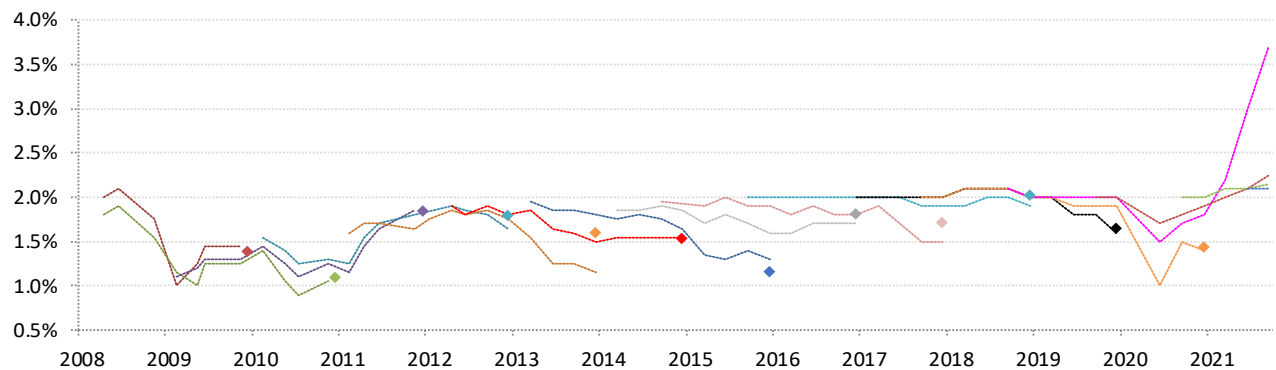
Forecast v actual: [economic projections](#) FRB and presidents *As of Sept 22 FOMC*

— Forecast ♦ Actual 2009 10 11 12 13 14 15 16 17 18 19 20 21 22 23 2024

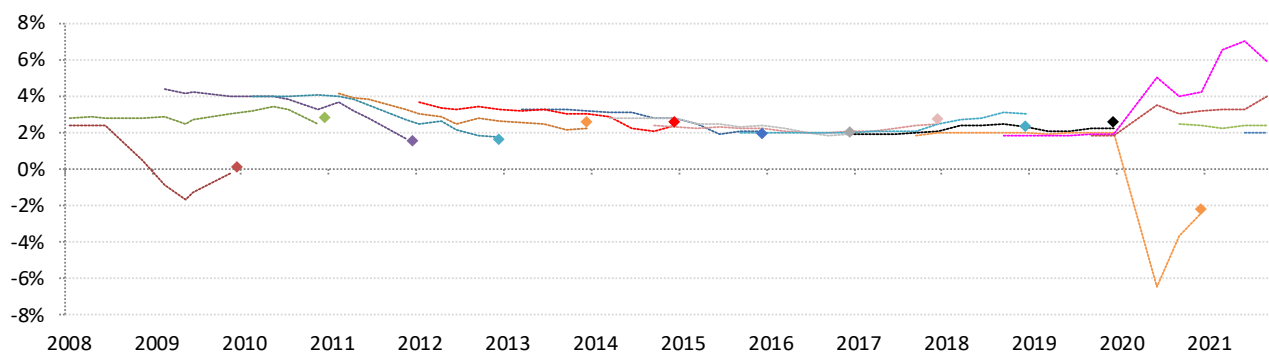
Unemployment



Core PCE inflation



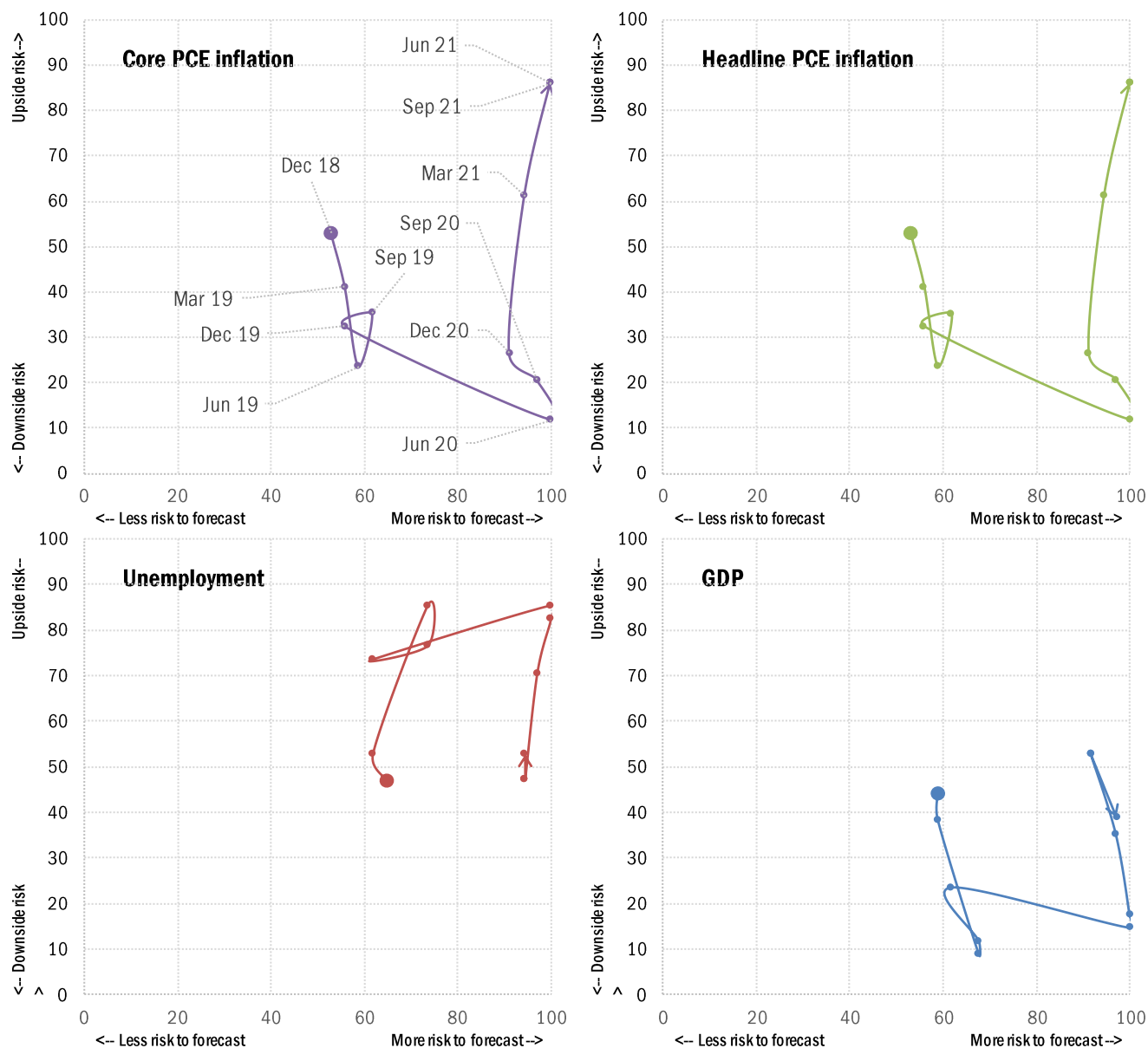
Real GDP



Source: Federal Reserve, BEA, BLS, TrendMacro calculations

The evolution of uncertainty *As of September 22 FOMC*

Diffusion indices from FOMC participants' risk self-assessments in [Summary of Economic Projections](#)



Source: Federal Reserve Board, TrendMacro calculations

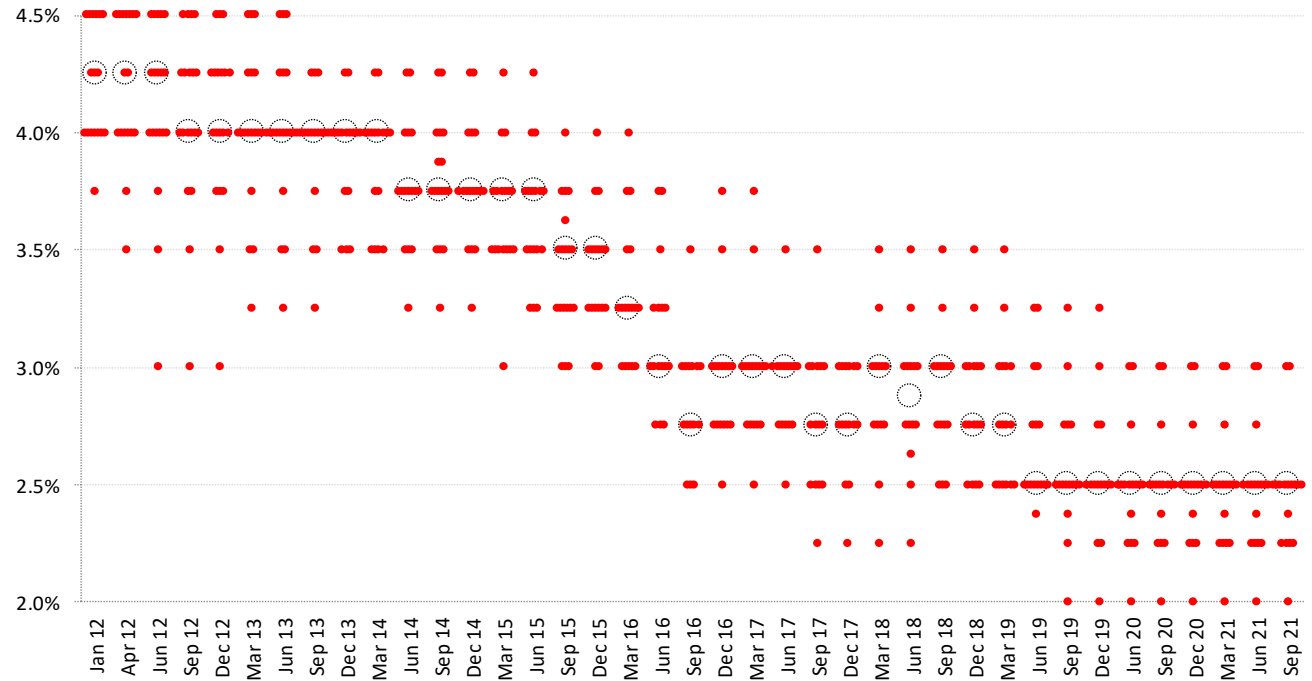
"R-star" – the ultimate

As of September 22 FOMC

FOMC participants' estimate of "longer run" target funds rate

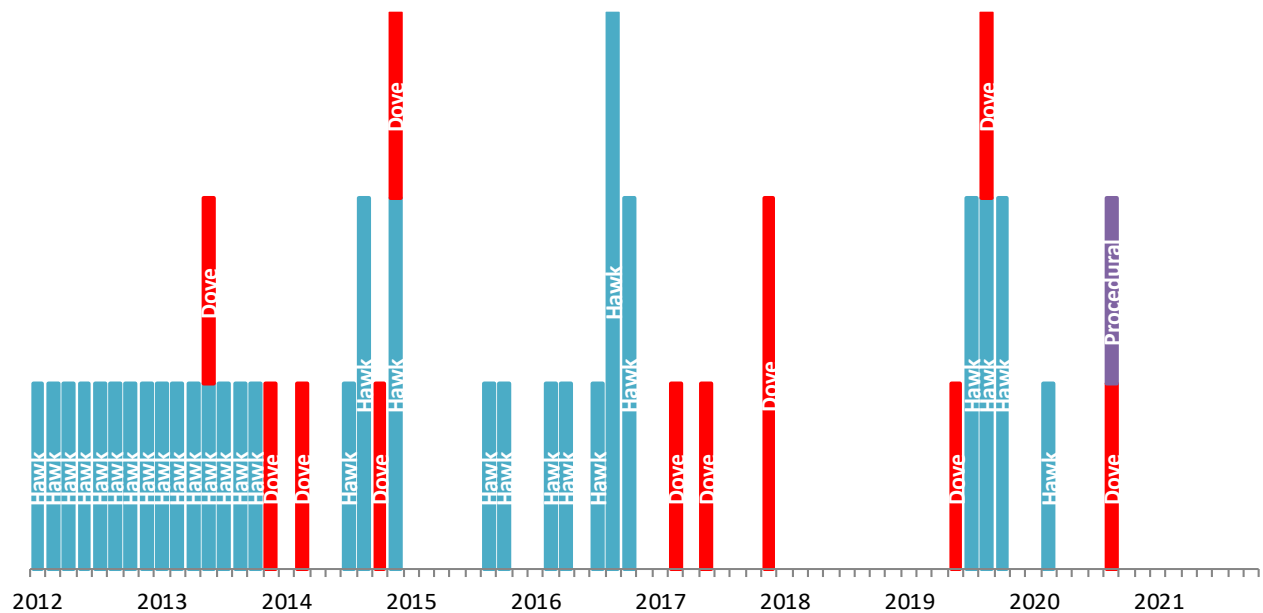
● Individual participant

○ Median



Source: Federal Reserve, TrendMacro calculations

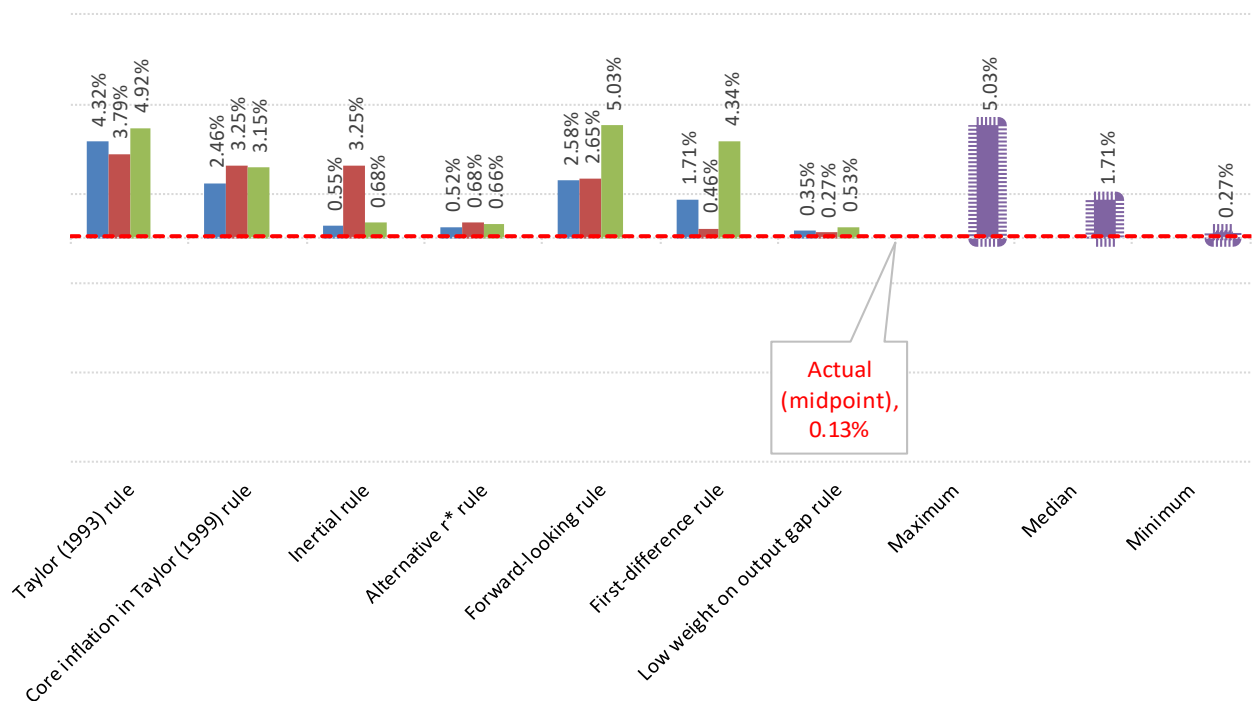
Other voices: number and direction of FOMC decision dissents



Source: FOMC, TrendMacro calculations

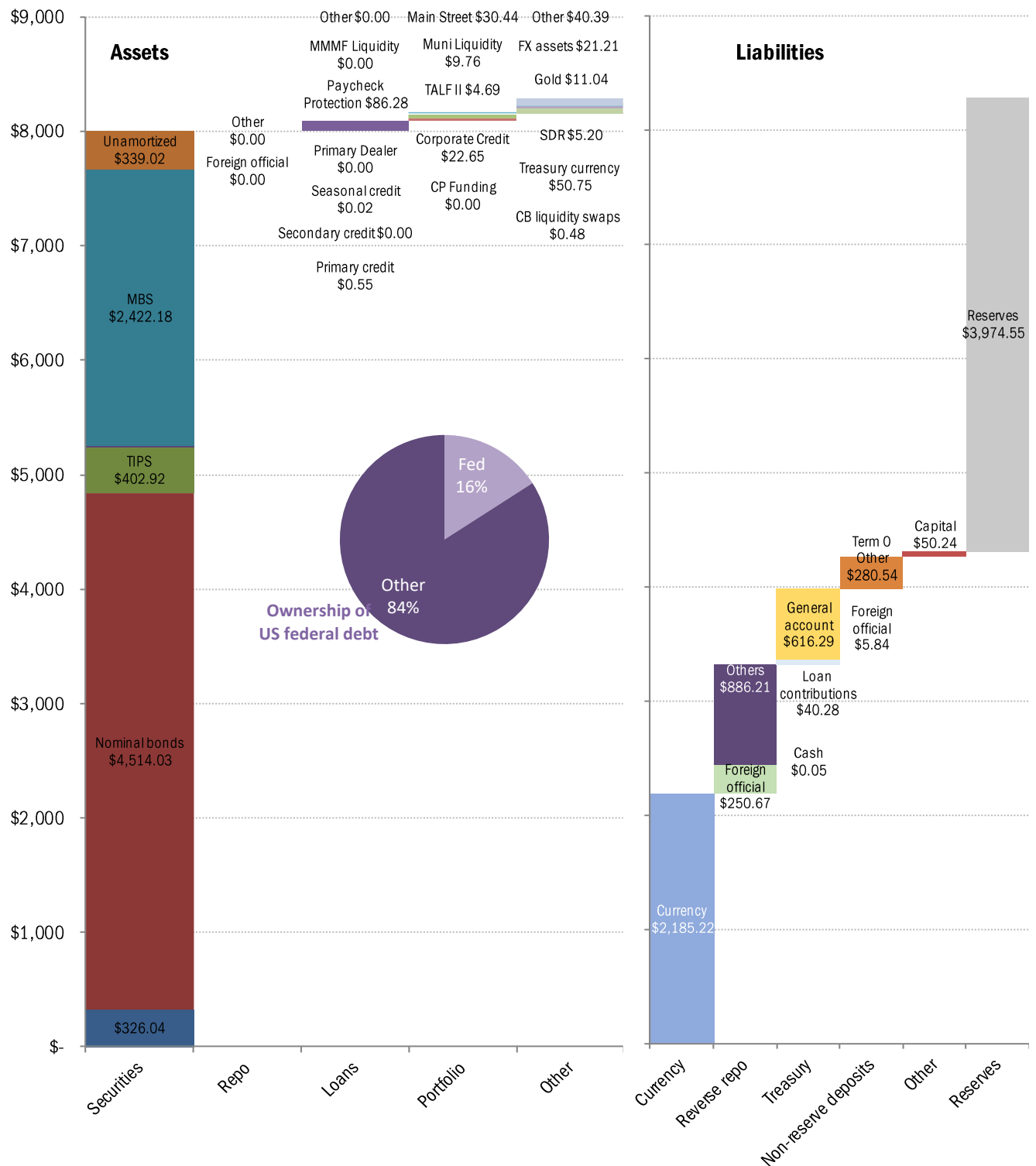
So many policy rules, so little time...

As of September 8, 2021 Based on inputs from: FOMC SEP CBO Cleveland Fed



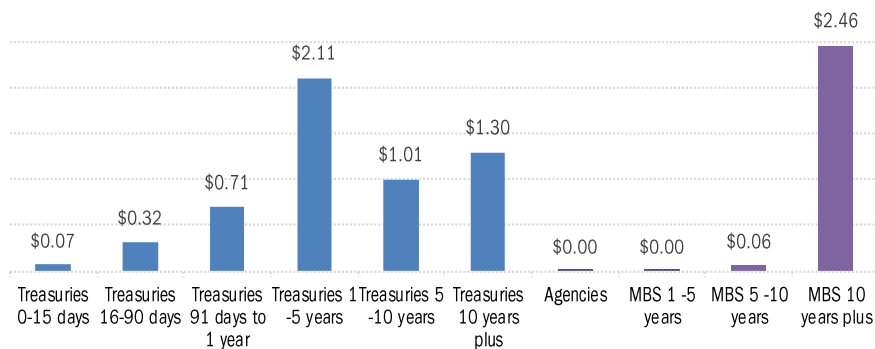
Source: [Cleveland Fed](#), TrendMacro calculations

The Fed's assets, and how they are funded (USD billions)

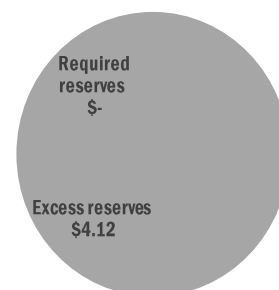


Source: Federal Reserve H.4, US Treasury, TrendMacro calculations

Sector and maturity breakdown of Fed government securities, USD trillions



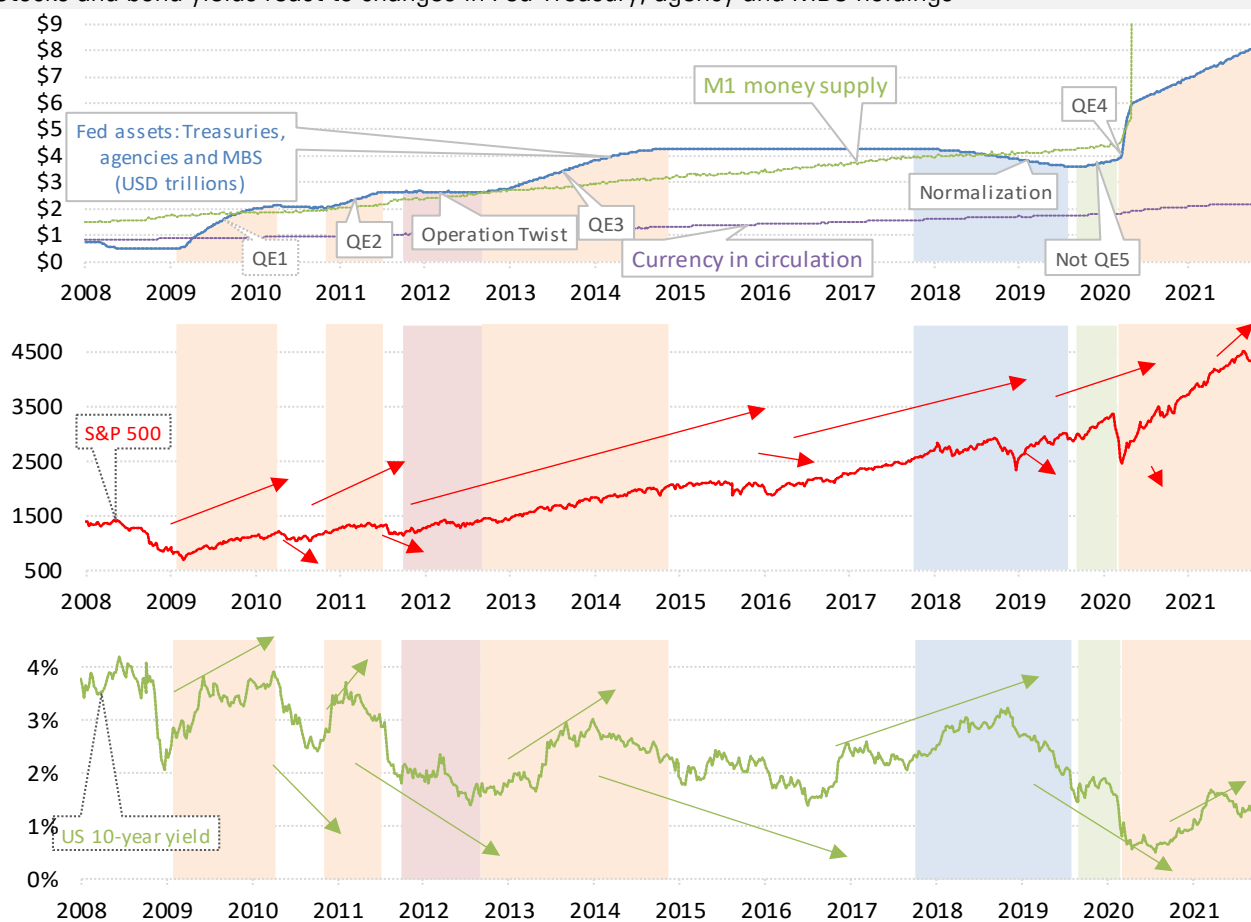
Banking reserves, USD trillions



Source: Federal Reserve, Bloomberg, TrendMacro calculations

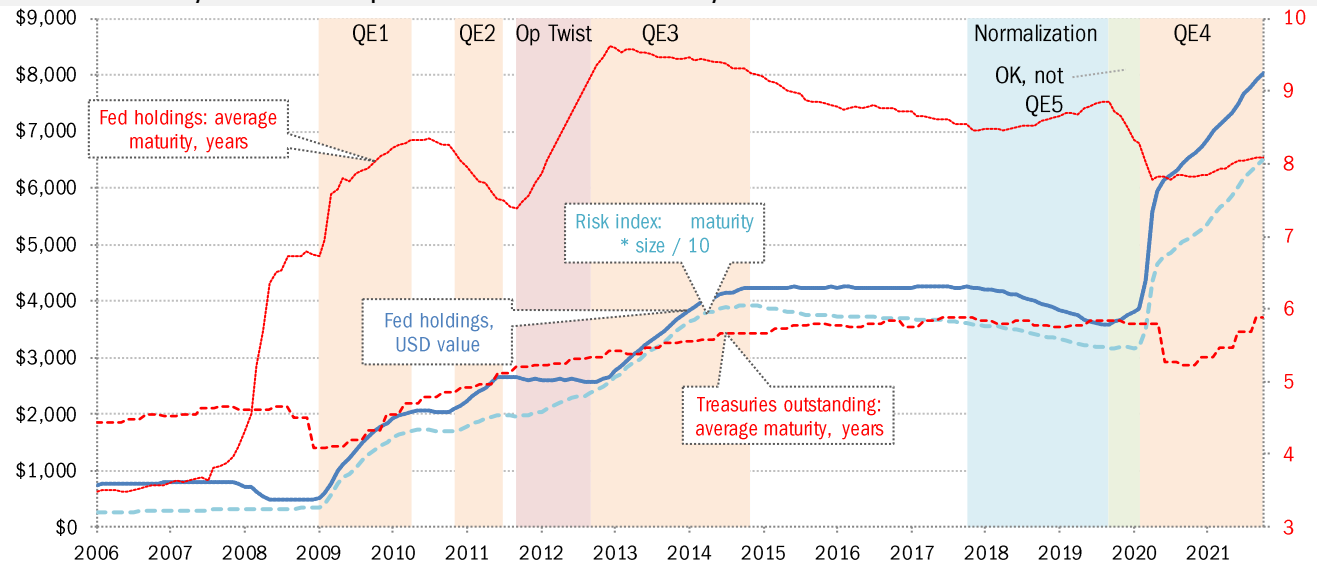
The Fed's asset purchases, and their effects on markets

Stocks and bond yields react to changes in Fed Treasury, agency and MBS holdings



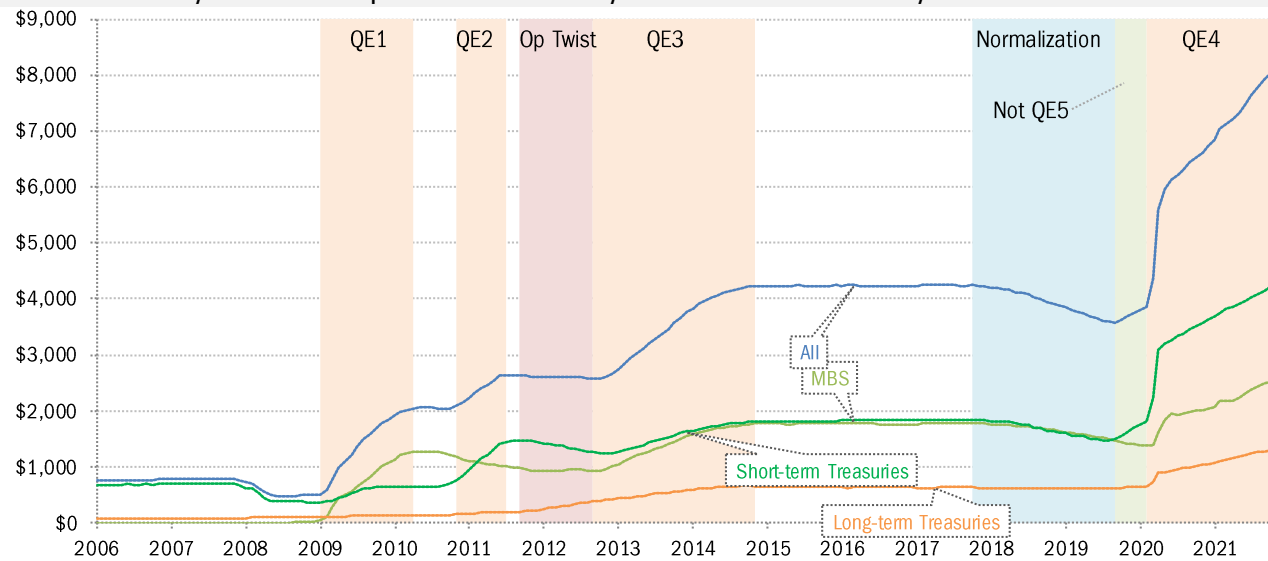
Source: Federal Reserve, Bloomberg, TrendMacro calculations

Fed Treasury and MBS portfolio: size, maturity and risk index



Source: Federal Reserve, Bloomberg, TrendMacro calculations

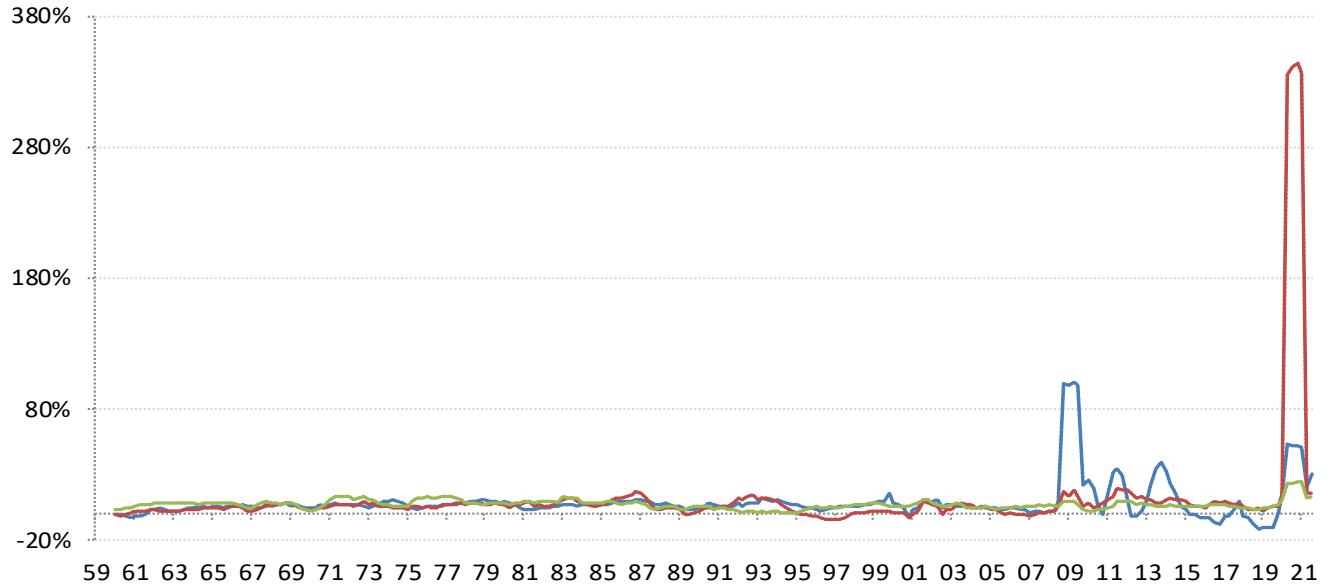
Fed Treasury and MBS portfolio: size by sector and maturity



Source: Federal Reserve, Bloomberg, TrendMacro calculations

Money supply growth, YOY quarterly

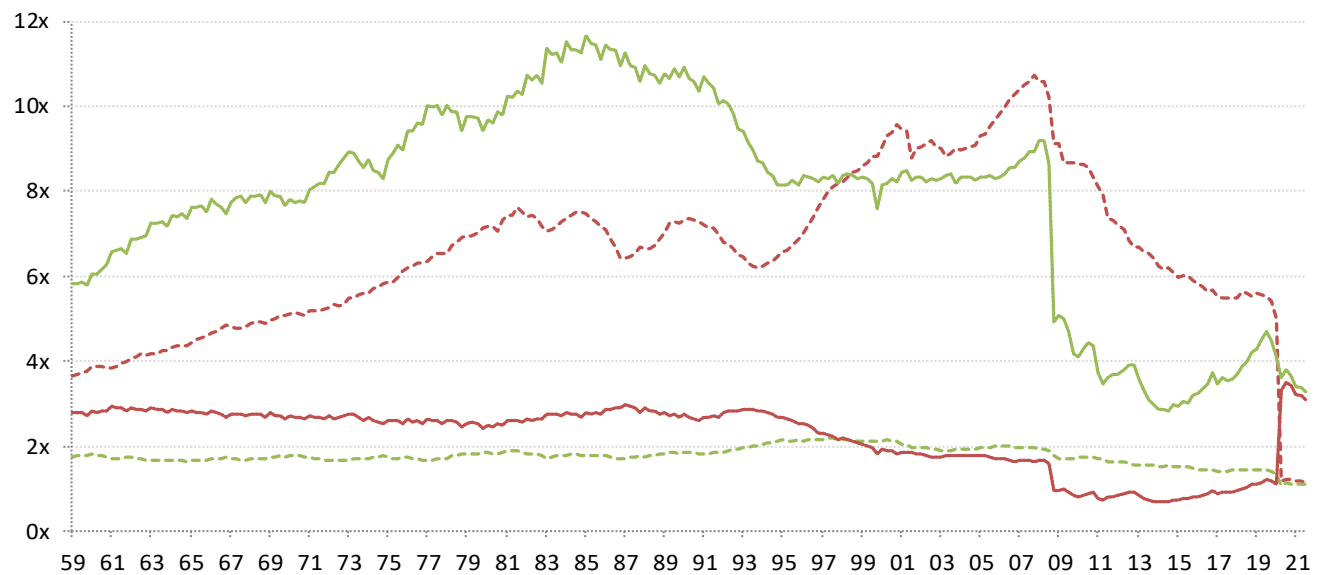
— M1 — M2 — Monetary base



Source: Federal Reserve H.6, TrendMacro calculations

Monetary velocity, quarterly

— M1 base multiplier - - - M1 output multiplier — M2 base multiplier - - - M2 output multiplier



Source: BEA, Federal Reserve H.6, TrendMacro calculations

Data Insights: FOMC Minutes

Wednesday, November 24, 2021

[November minutes](#): key signaling language **Featured** **Important** **Very important**

... In their discussion of current conditions, participants noted that, with progress on vaccinations and strong policy support, indicators of economic activity and employment had continued to strengthen. The sectors most adversely affected by the pandemic had improved in recent months, but the summer's rise in COVID-19 cases had slowed their recovery. Inflation was elevated, largely reflecting factors that were expected to be transitory. Supply and demand imbalances related to the pandemic and the reopening of the economy had contributed to sizable price increases in some sectors. Overall financial conditions remained accommodative, in part reflecting policy measures to support the economy and the flow of credit to U.S. households and businesses. Participants noted that the path of the economy continued to depend on the course of the virus. Progress on vaccinations and an easing of supply constraints were expected to support continued gains in economic activity and employment as well as a reduction in inflation, but risks to the economic outlook remained.

Participants observed that growth in economic activity had slowed in the third quarter to a rate significantly below the robust pace seen in the first half of the year. The spread of the Delta variant had contributed to the slowdown in growth in the third quarter by damping household and business spending, holding down labor supply, and intensifying supply chain disruptions. Participants noted that the underlying conditions supporting growth in demand remained strong and that, as the number of COVID-19 cases remained well below the summer's levels, growth in economic activity would likely show a pickup in the fourth quarter. They further foresaw robust growth in 2022, supported by progress on vaccinations and an easing of supply constraints.

In their discussion of the household sector, participants remarked that demand for most consumer goods had remained strong. They noted that businesses had generally recorded robust sales despite labor shortages and other supply disruptions that had prevented them from fully meeting higher demand for their products. Participants interpreted available data as suggesting that the spread of the Delta variant had slowed the shift of consumer demand toward purchases of services and away from spending on goods, stretching out the full reopening of the economy and intensifying supply and demand imbalances. Participants observed that households had strong balance sheets and that consumer spending would also be supported by accommodative financial conditions. A number of participants noted that there was likely to be a drag on household spending as previous fiscal support faded, or that fiscal policy might provide some support to aggregate demand if the Congress authorized major new federal appropriations.

Participants remarked that supply chain challenges and limited labor availability continued to be major constraints on manufacturing activity and the business sector more broadly. Bottleneck pressures faced by businesses were accompanied by global supply chain disruptions associated with major backlogs in shipments and transportation as well as surging demand for a variety of goods, shortages of labor and other inputs, increases in costs of production, and depleted inventory levels in key sectors. Many business contacts had experienced a worsening of supply chain problems, and participants reported that firms had responded to these challenges by taking a variety of actions, including raising prices, turning away customers, restructuring supply chains, and using alternative, but higher-cost, shipping options. Participants judged that supply constraints would likely continue for longer than they had previously expected.

Participants noted that data received over the intermeeting period indicated that labor market conditions had continued to improve. Although the September increase in payrolls had been moderate compared with recent months, the unemployment rate had declined further and previous months' job growth had been revised up. Participants observed that September's rise in payrolls had been held down by a shortage of workers, in part reflecting the ongoing effect of the virus on labor supply decisions. With COVID-19 cases expected to remain below the summer's levels, participants anticipated better payroll numbers in the months ahead. Participants

indicated that District contacts continued to report difficulties in finding and retaining workers and that, in addition to offering higher wages, businesses were turning to increased use of automation.

While recognizing that labor market conditions varied significantly across the country, some participants cited a number of signs that the U.S. labor market was very tight: These included data on quits, job availability, and stronger rates of nominal wage growth reflected in the recent rise in the employment cost index, as well as the readings provided by the Federal Reserve Bank of Kansas City's Labor Market Conditions Indicators. A number of participants observed that the labor force participation rate remained well below the level reached before the pandemic. Several participants judged that labor force participation would be structurally lower than in the past, and a few of these participants cited the high level of retirements recorded since the start of the pandemic. Several other participants suggested that labor supply was currently being depressed by pandemic-related factors such as disruptions related to caregiving arrangements and noted that the importance of such factors would likely diminish as economic and public health conditions improved further.

Participants generally saw the current elevated level of inflation as largely reflecting factors that were likely to be transitory but judged that inflation pressures could take longer to subside than they had previously assessed. They remarked that the Delta wave had intensified the impediments to supply chains and had helped sustain the high level of goods demand, adding to the upward pressure on prices. Participants also observed that increases in energy prices, stronger rates of nominal wage growth, and higher housing rental costs had been forces adding to inflation. Some participants highlighted the fact that price increases had become more widespread. Although participants expected significant inflation pressures to last for longer than they previously expected, they generally continued to anticipate that the inflation rate would diminish significantly during 2022 as supply and demand imbalances abated. Nonetheless, they indicated that their uncertainty regarding this assessment had increased. Many participants pointed to considerations that might suggest that elevated inflation could prove more persistent. These participants noted that average inflation already exceeded 2 percent when measured on a multiyear basis and cited a number of factors—such as businesses' enhanced scope to pass on higher costs to

their customers, the possibility that nominal wage growth had become more sensitive to labor market pressures, or accommodative financial conditions—that might result in inflation continuing at elevated levels. Some other participants, however, remarked that although inflationary pressures were lasting longer than anticipated, those pressures continued to reflect the same pandemic-related imbalances and would likely abate when supply constraints eased. These participants also noted that the most sizable price increases may have already occurred, that there was as yet little evidence of a change in inflation dynamics—such as the development of a wage–price spiral—that would tend to prolong elevated levels of inflation, and that forces already in motion would likely bring inflation down toward 2 percent over the medium term. Participants were attentive to the sizable increase in the cost of living that had taken place this year and the associated burden on U.S. households, particularly those who had limited scope to pay higher prices for essential goods and services.

In their comments on inflation expectations, a number of participants discussed the risk that, in light of recent elevated levels of inflation, the public's longer-term expectations of inflation might increase to a level above that consistent with the Committee's longer-run inflation objective; such a development could make it harder for the Committee to achieve 2 percent inflation over the longer run. A couple of participants pointed to increases in survey- and market-based indicators of expected inflation—including the notable rise in the five-year TIPS-based measure of inflation compensation—as possible signs that inflation expectations were becoming less well anchored. Several other participants, however, remarked that measures of near- and medium-term inflation expectations typically had been sensitive to movements in realized inflation and that they had not exhibited greater sensitivity recently. They additionally pointed out that indicators of longer-term inflation expectations—including the five-year, five-year-forward measure of inflation compensation—continued to display less sensitivity to realized inflation and remained well anchored at levels consistent with the Committee's longer-run 2 percent goal.

Participants observed that uncertainty about the economic outlook remained high. They particularly stressed uncertainties associated with the labor market, including the evolution of labor force participation, and with the length of time required to resolve the supply chain situation. Participants cited upside risks to inflation, including those associated with strong demand for goods and a tight labor market.

Upside risks to economic activity included a potential near-term boost to aggregate demand that could arise from the drawing down of the substantial savings accumulated by households since the beginning of the pandemic. A few participants mentioned an upsurge in COVID-19 cases during the coming winter or an emergence of new virus strains as possibilities that, if they were realized, would damp economic activity and intensify price pressures.

A number of participants commented on issues related to financial stability. A couple of participants noted factors supporting the strength and resilience of the U.S. financial system, including the solid capital and liquidity conditions of banks and the fact that underwriting standards for residential mortgages had not eased substantially in an environment of rising house prices. A few participants emphasized the importance of maintaining strong bank capital positions, particularly at the largest banks. A few participants also cited a number of factors representing potential vulnerabilities to the financial system: These included elevated asset valuations prevailing widely across asset classes, the growing exposure of banks to nonbank financial firms, and the risk of a sudden reduction in the liquidity of collateral used at central counterparty clearing and settlement systems. In the area of cybersecurity, a few participants stressed the importance of greater preparedness against a cyberattack that could disrupt the nation's payments process and financial system. Several participants commented on the financial stability risks—including those relating to maturity and liquidity transformation—associated with stablecoins and on the need for regulators to address these risks. A few participants noted the importance of developing systematic monitoring of the climate-related risks facing the financial system.

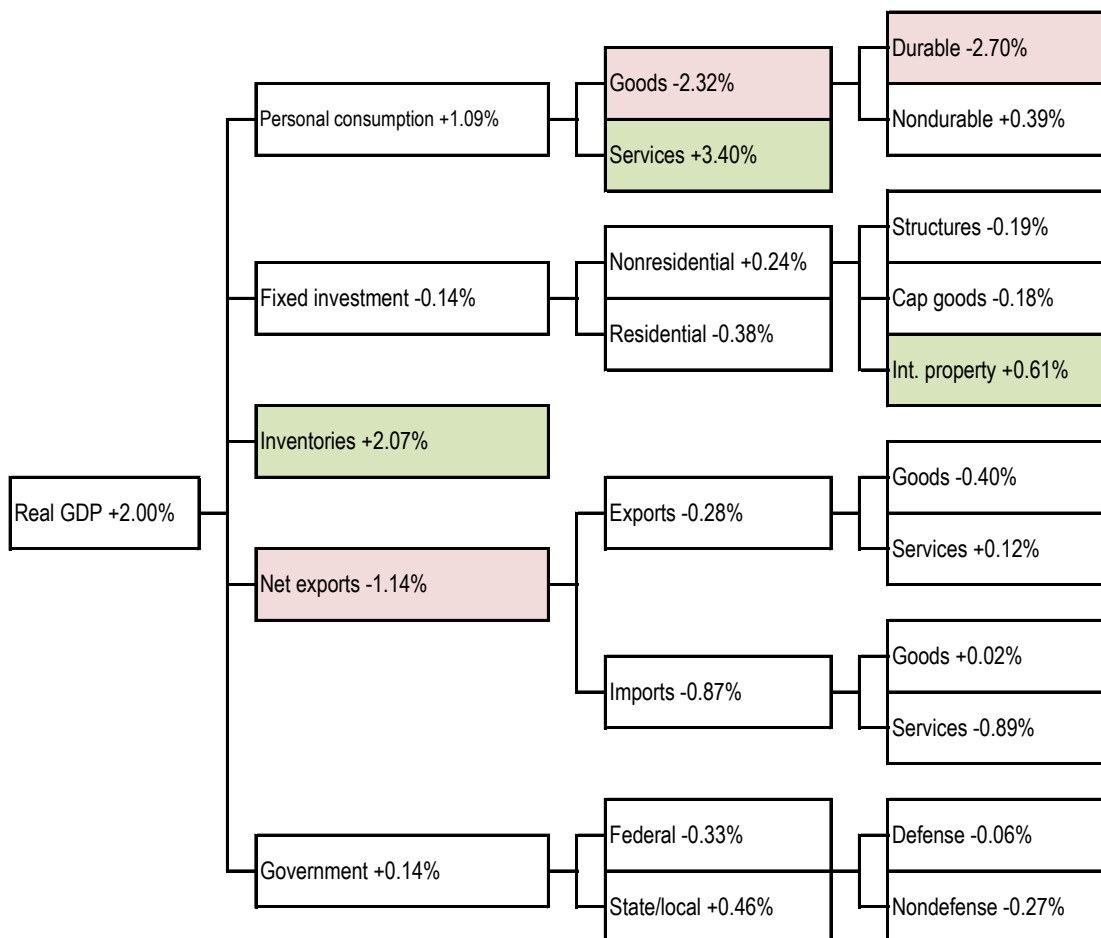
In their consideration of the stance of monetary policy, participants agreed that the economy had made substantial further progress toward the Committee's goals since December 2020, when the Committee adopted its guidance regarding asset purchases. The unemployment rate had declined to 4.8 percent in September—about 2 percentage points lower than the level last December—and job openings and other indicators also were pointing to widespread strength in labor demand, consistent with a broad improvement in labor market conditions. Consequently, participants assessed that the criterion of substantial further progress had been met with regard to the Committee's maximum employment goal. In addition, participants generally

Data Insights: GDP

Thursday, October 28, 2021

Today's GDP data: what you need to know -- where did the growth come from?

Contributions to real, sequential quarter change, SAAR Biggest change per detail-level: ■ positive ■ negative



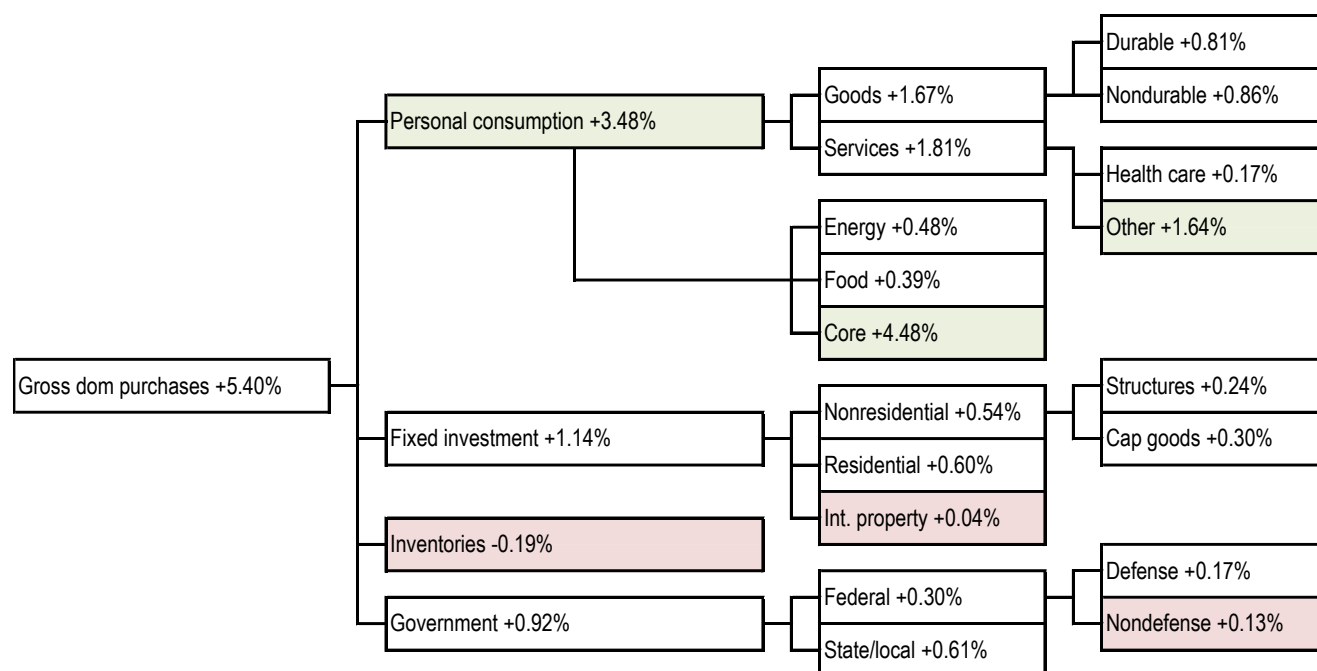
Source: Bureau of Economic Analysis

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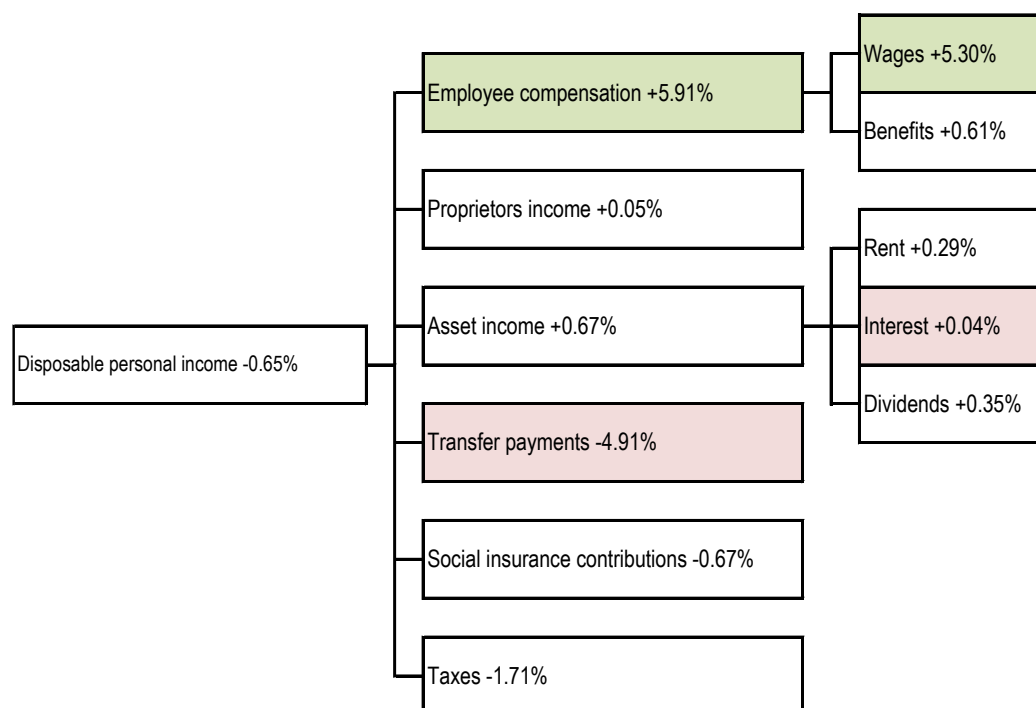
Price index data: what you need to know -- where did the inflation come from?

Contribution to sequential quarter change, SAAR Biggest change per detail-level: ■ positive ■ negative



Personal income data: what you need to know -- where did the growth come from?

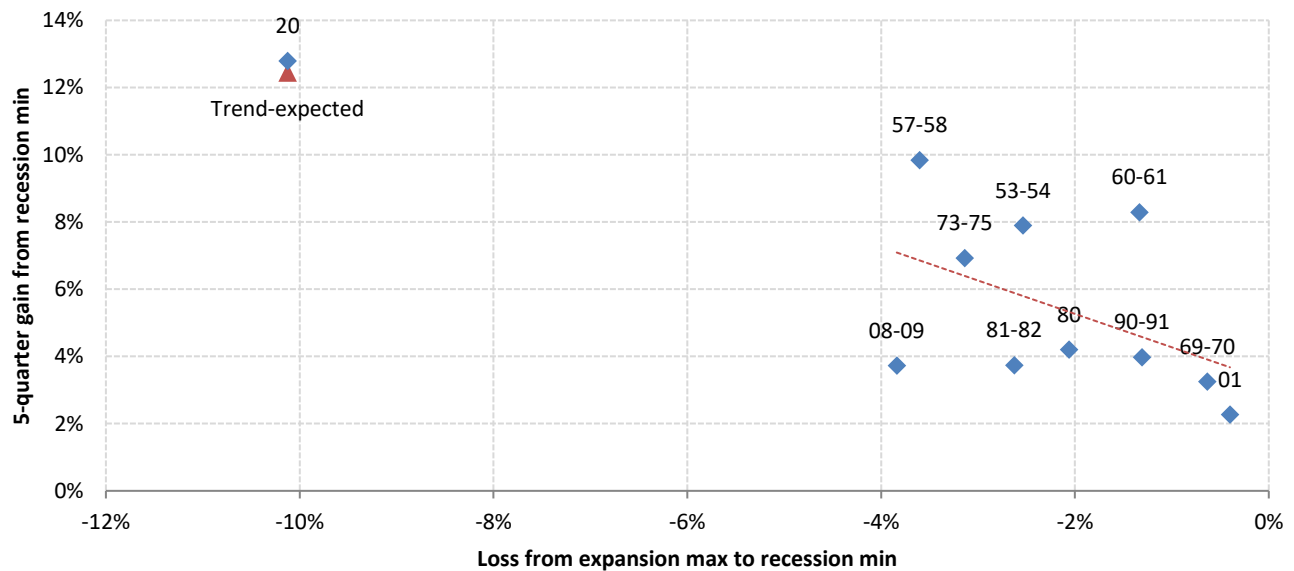
Contribution to nominal, seq quarter change, SAAR Biggest change per detail-level: ■ positive ■ negative



Source: Bureau of Economic Analysis, TrendMacro calculations

The Zarnowitz Law: severity of output loss in recession, versus vigor of recovery

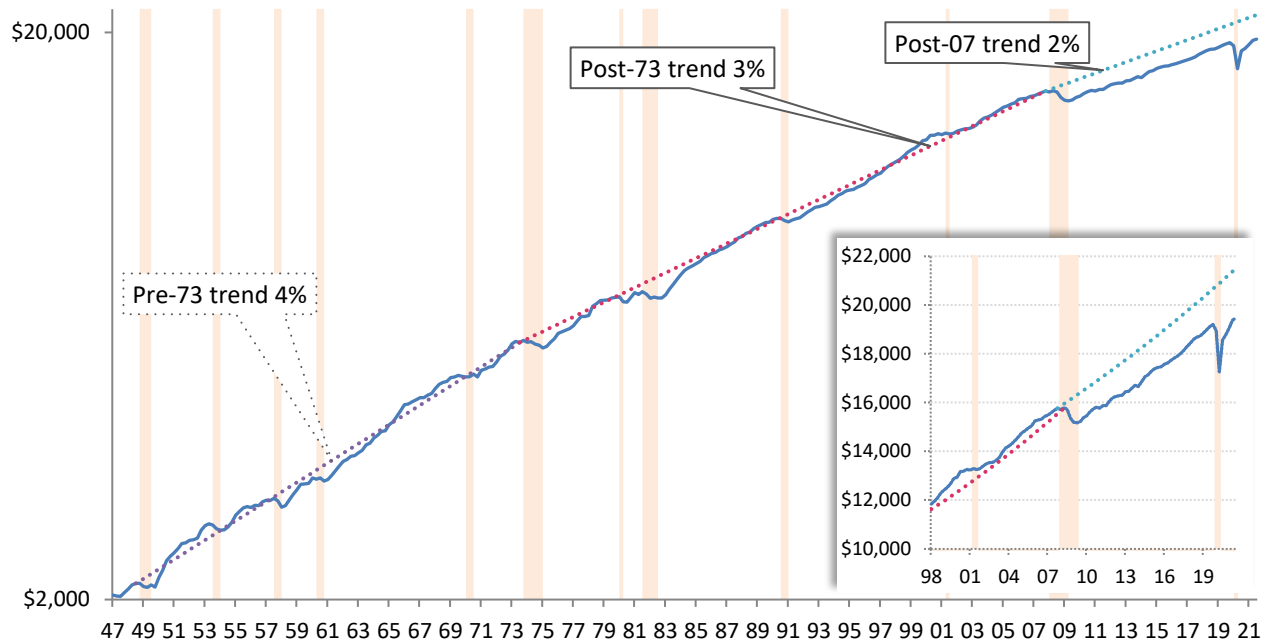
◆ Actual --- Regression for recessions 1948-2001 ▲ Theoretical for 2009-19 recovery based on regression



Source: Bureau of Economic Analysis, National Bureau of Economic Research, TrendMacro calculations

The plucked string theory: GDP reverts to trend after perturbation

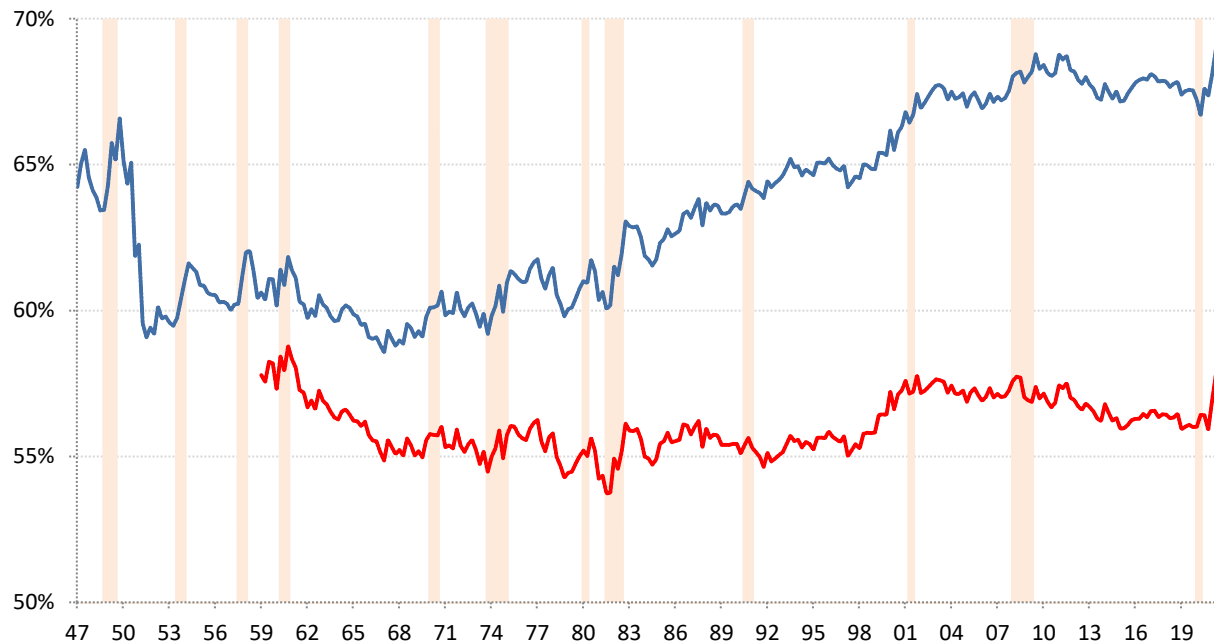
— Real GDP, USD billions, log scale --- '47-'74 3.99% --- '74-'07 trend 3.02% --- Post-'07 trend Recession



Source: Bureau of Economic Analysis, National Bureau of Economic Research, TrendMacro calculations

"New normal" watch: personal consumption share of nominal GDP

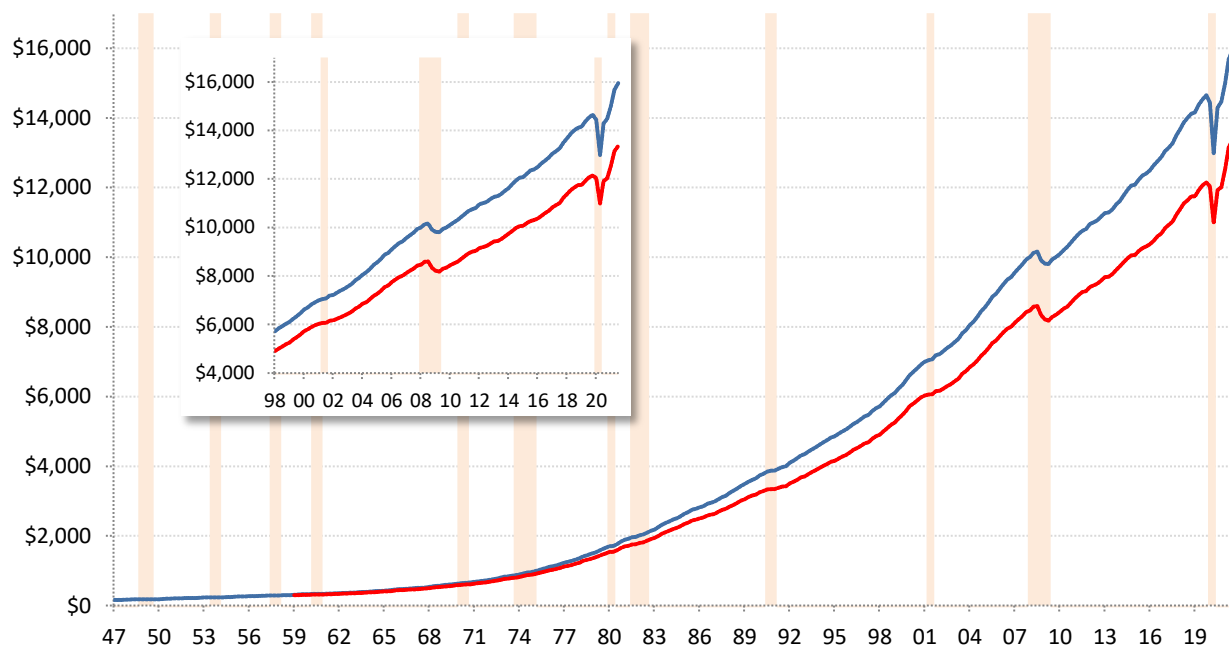
— Personal consumption expenditures — Ex-health care services — Recession



Source: Bureau of Economic Analysis, National Bureau of Economic Research, TrendMacro calculations

"New normal" watch: nominal personal consumption expenditures

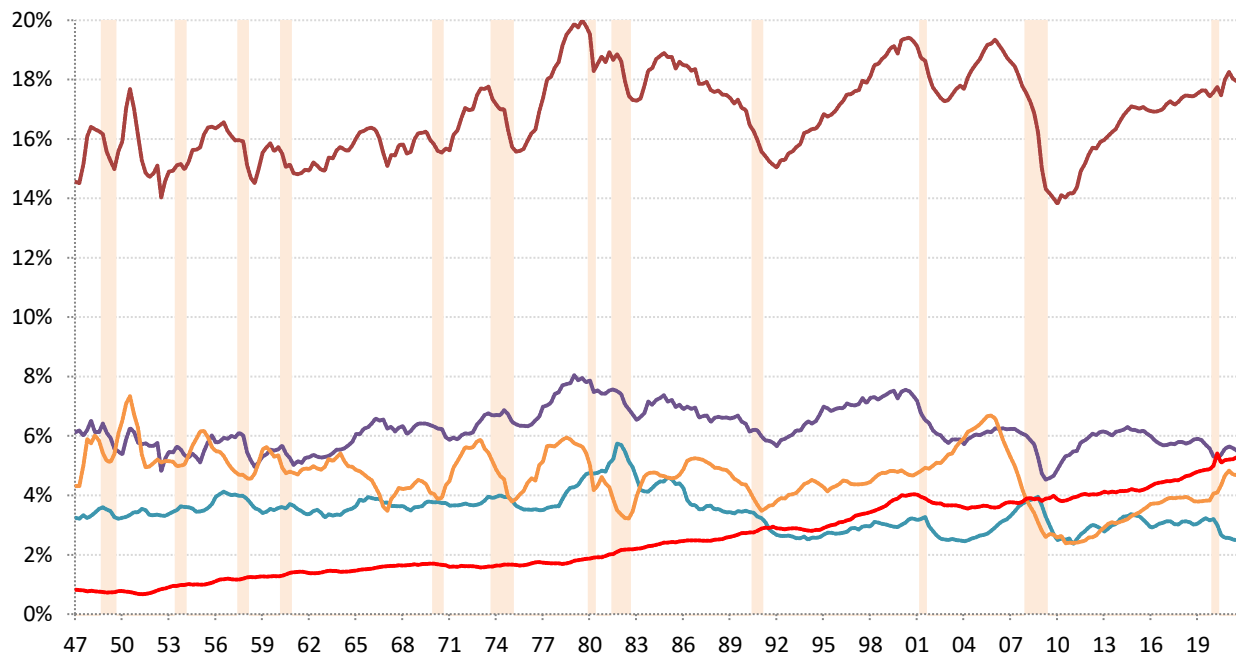
USD billions — Personal consumption expenditures — Ex-health care services — Recession



Source: Bureau of Economic Analysis, National Bureau of Economic Research, TrendMacro calculations

Capital on strike: fixed investment share of nominal GDP

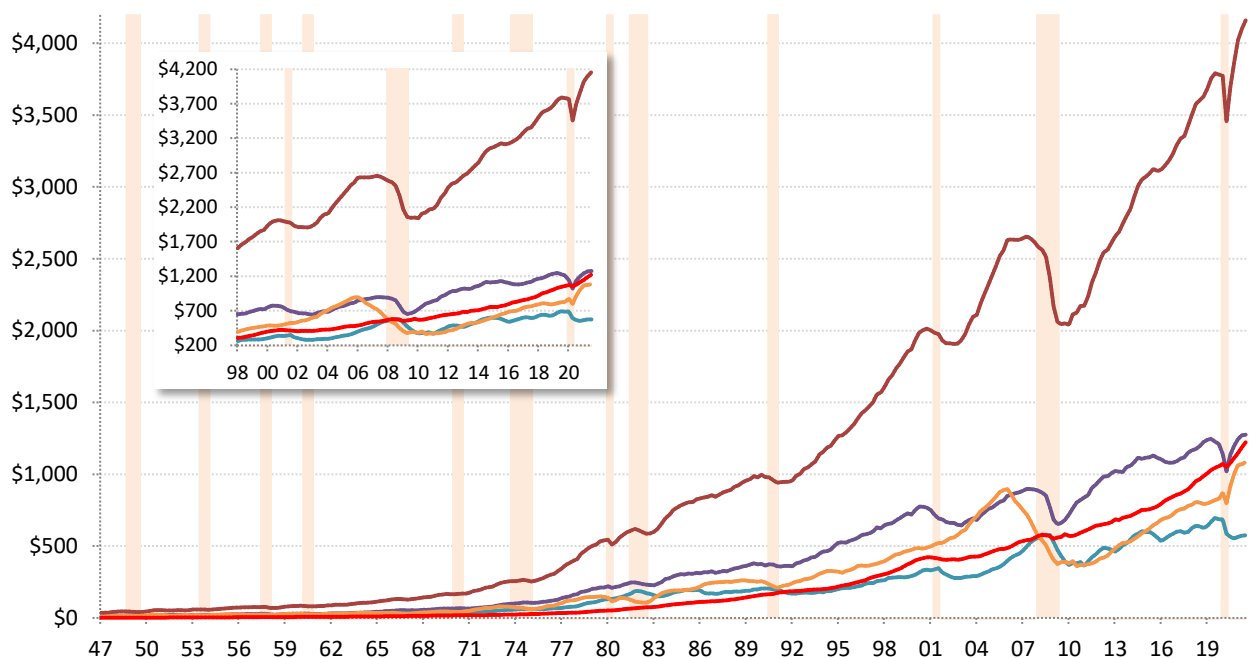
Fixed investment Equipment Int. property Nonresidential structures Housing Recession



Source: Bureau of Economic Analysis, National Bureau of Economic Research, TrendMacro calculations

Capital at work: nominal fixed investment

USD billions Fixed investment Equipment Int. property Nonresidential structures Housing

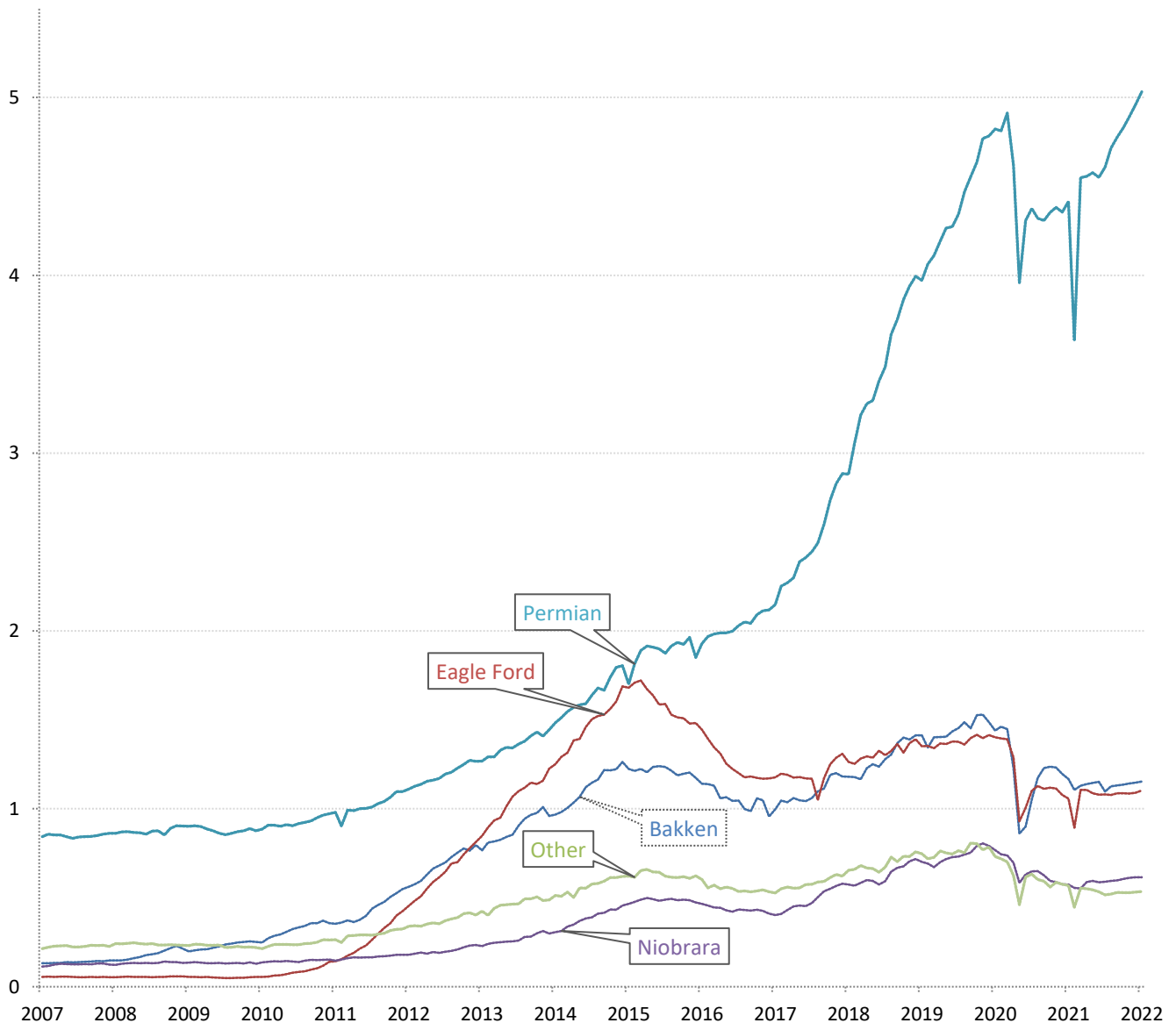


Source: Bureau of Economic Analysis, National Bureau of Economic Research, TrendMacro calculations

Data Insights: Oil

Tuesday, December 14, 2021

The light tight oil revolution -- the rollover, the recovery and the lockdown
 Production in major US shale plays, millions of barrels/day

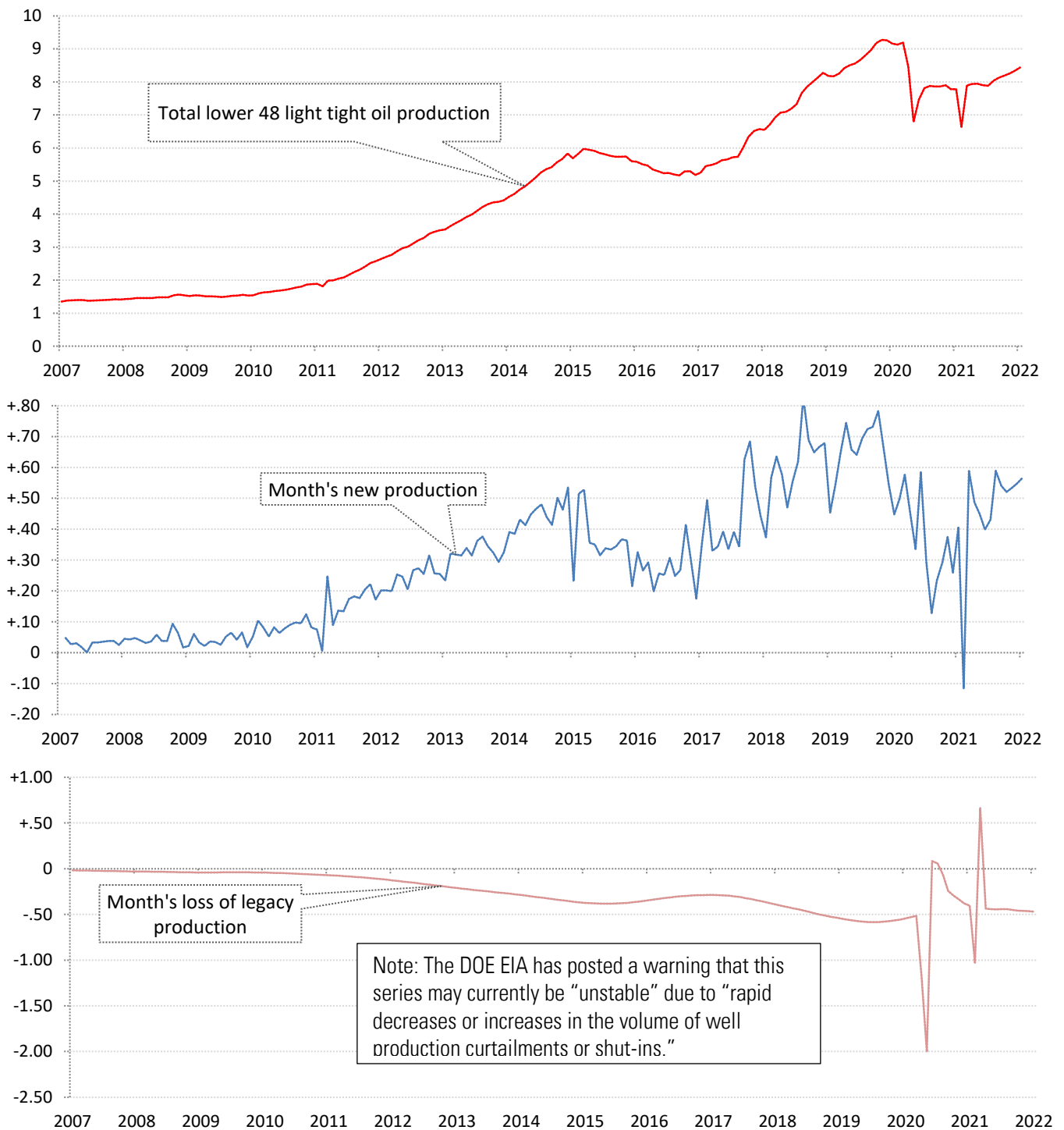


Source: DOE EIA Drilling Productivity Report, TrendMacro calculations

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Inside the revolution: depleting legacy, diminishing new production

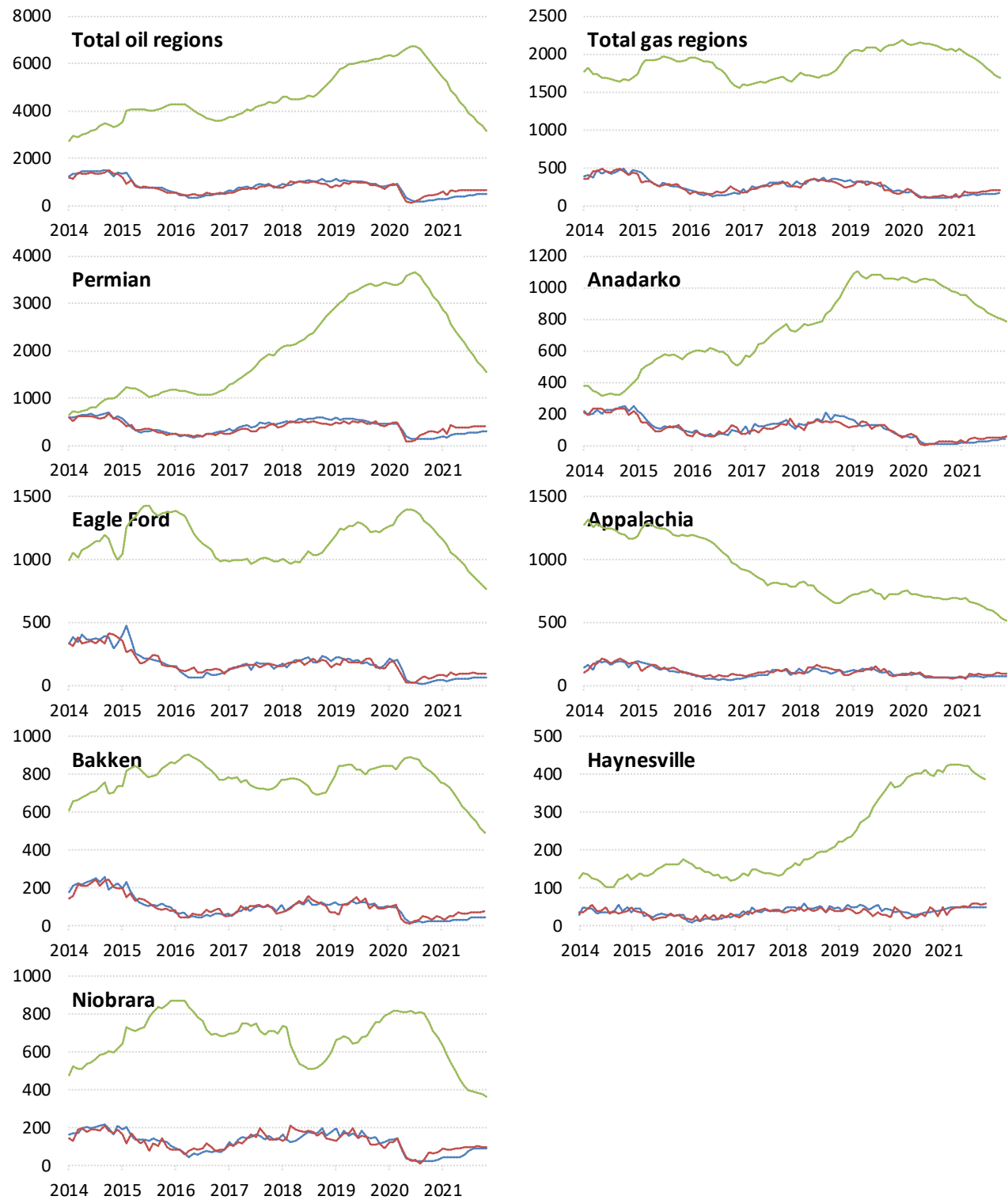
Aggregate production in major US shale plays, millions of barrels/day



Source: DOE EIA Drilling Productivity Report, TrendMacro calculations

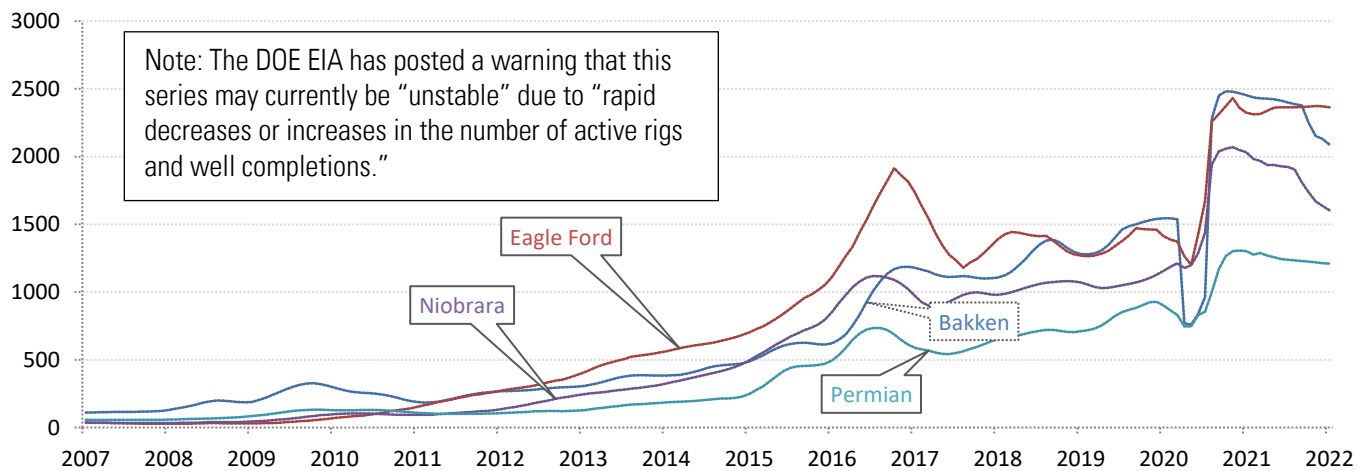
Low fracking fruit: the inventory of drilled but uncompleted wells (DUC)

Wells: — Drilled — Completed — Drilled but uncompleted



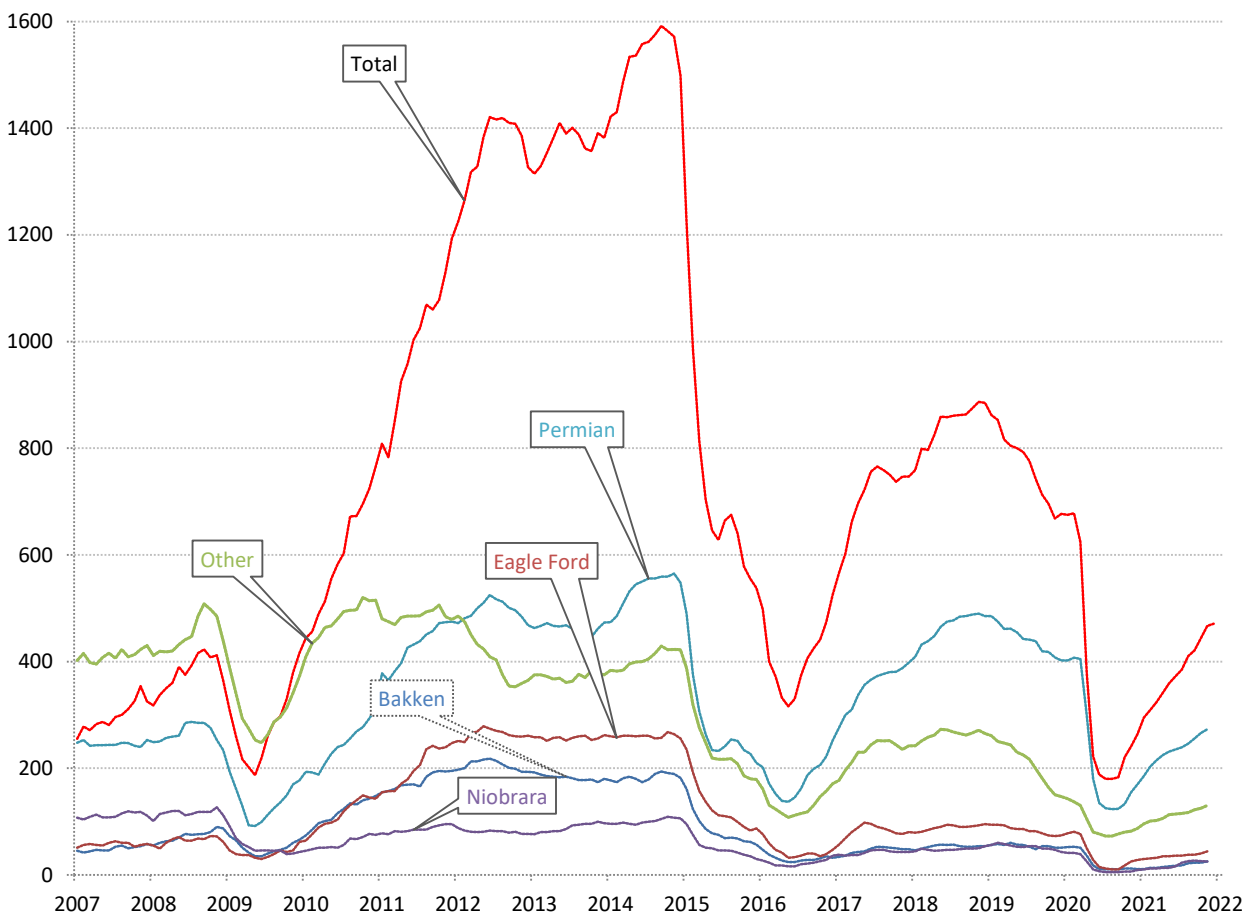
Source: DOE EIA Drilling Productivity Report, TrendMacro calculations

Doing a lot more... New-well oil production per rig, major US shale plays, barrels/day



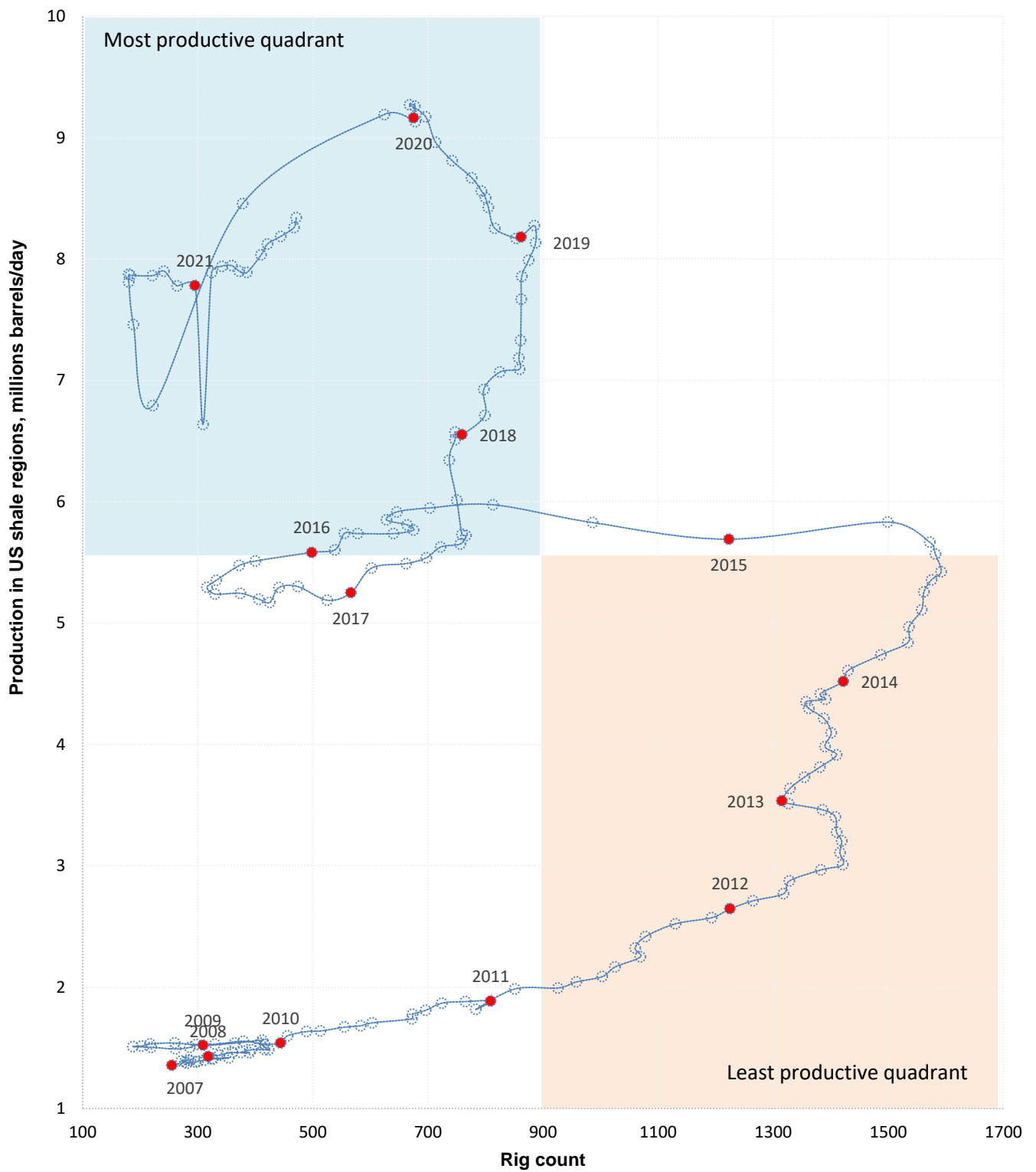
Source: DOE EIA Drilling Productivity Report, TrendMacro calculations

...with a lot less Rig count, total oil and major US shale plays



Source: DOE EIA Drilling Productivity Report, Baker Hughes, TrendMacro calculations

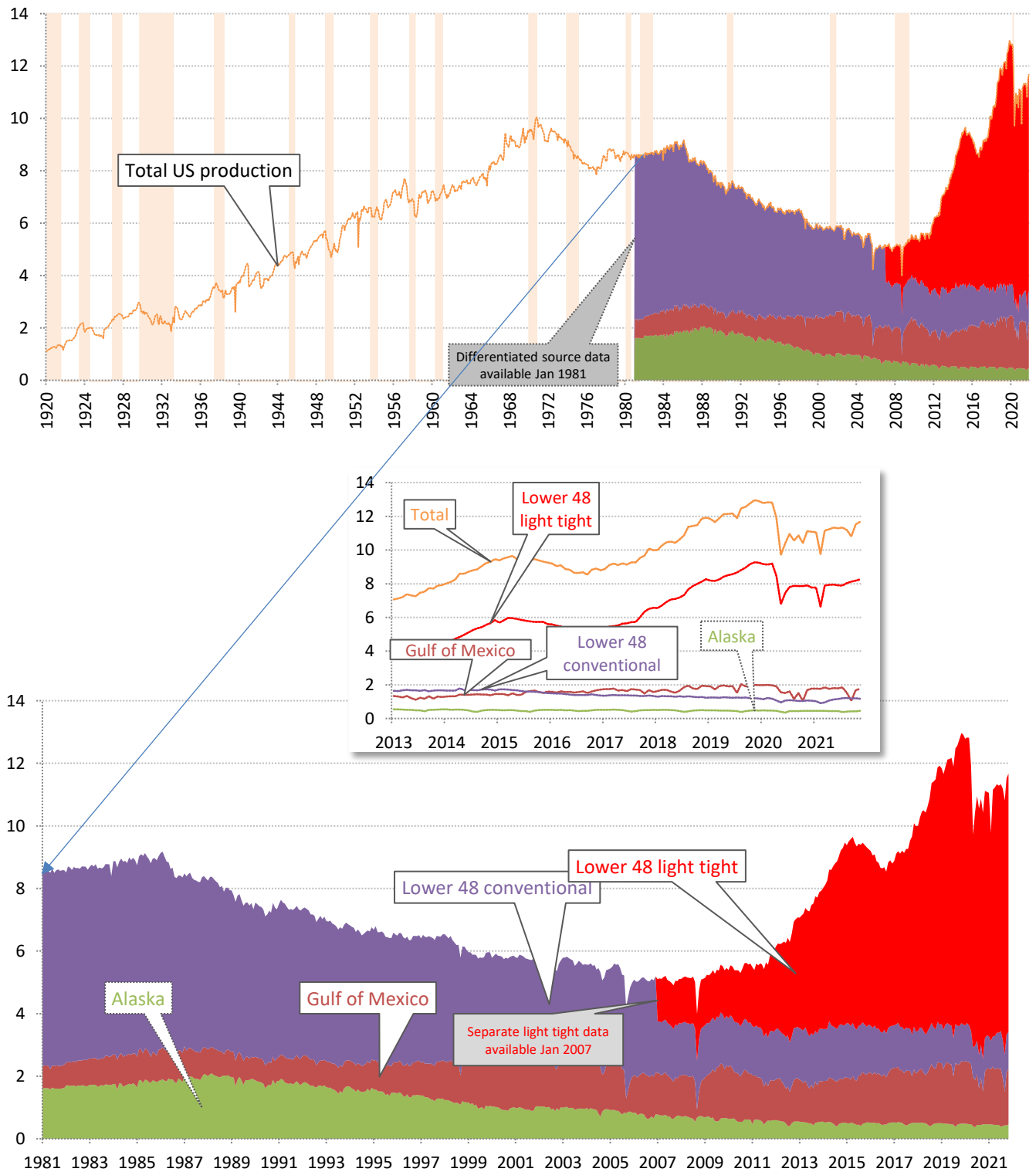
Flooding the productivity zone



Source: DOE EIA Drilling Productivity Report, TrendMacro calculations

US crude oil production -- deep history, and the modern transformation of sources

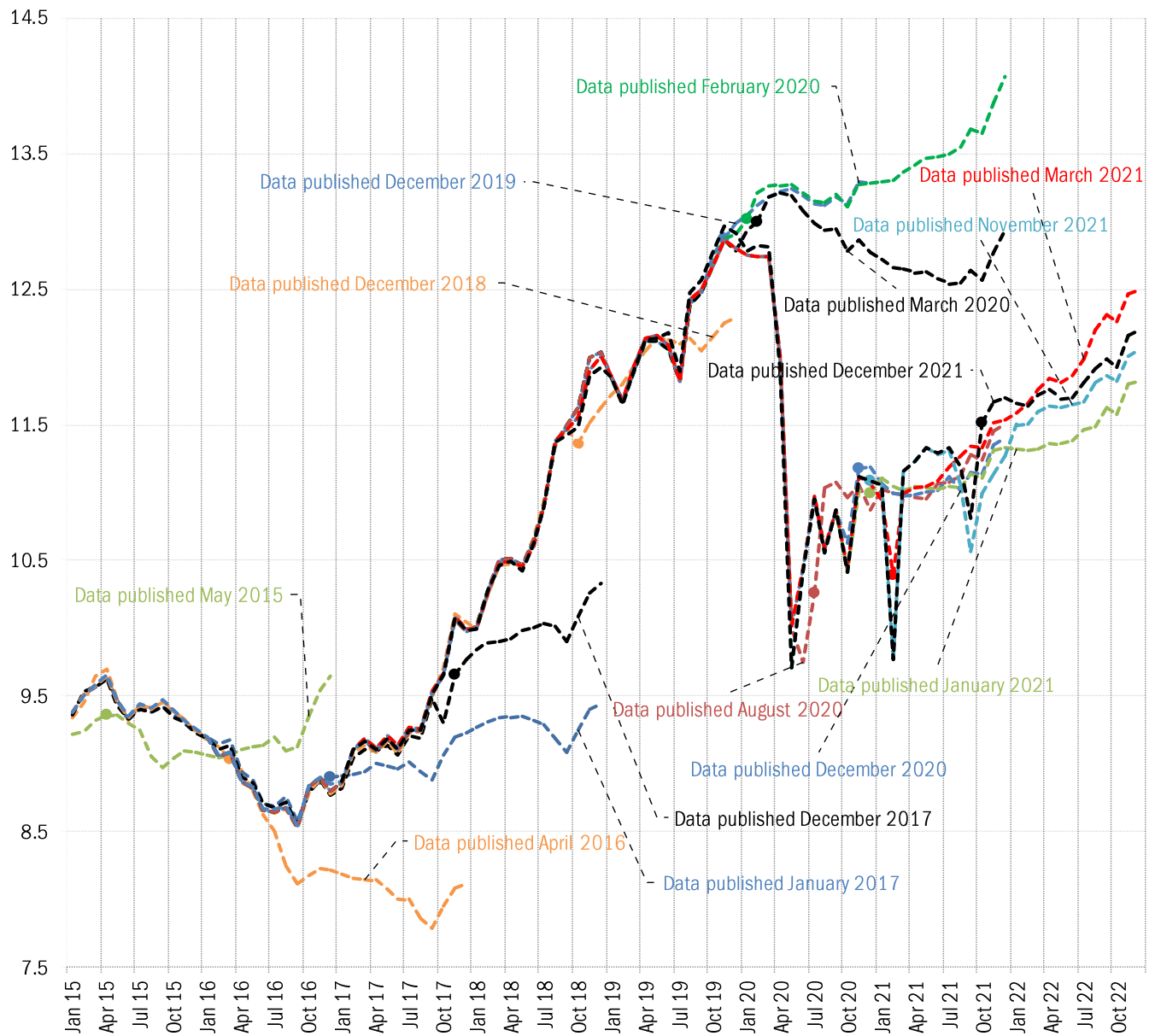
Millions of barrels/day Recession



Source: DOE EIA Short Term Energy Outlook, Drilling Productivity Report, TrendMacro calculations

The evolution of expectations: booms and busts in US production outlooks

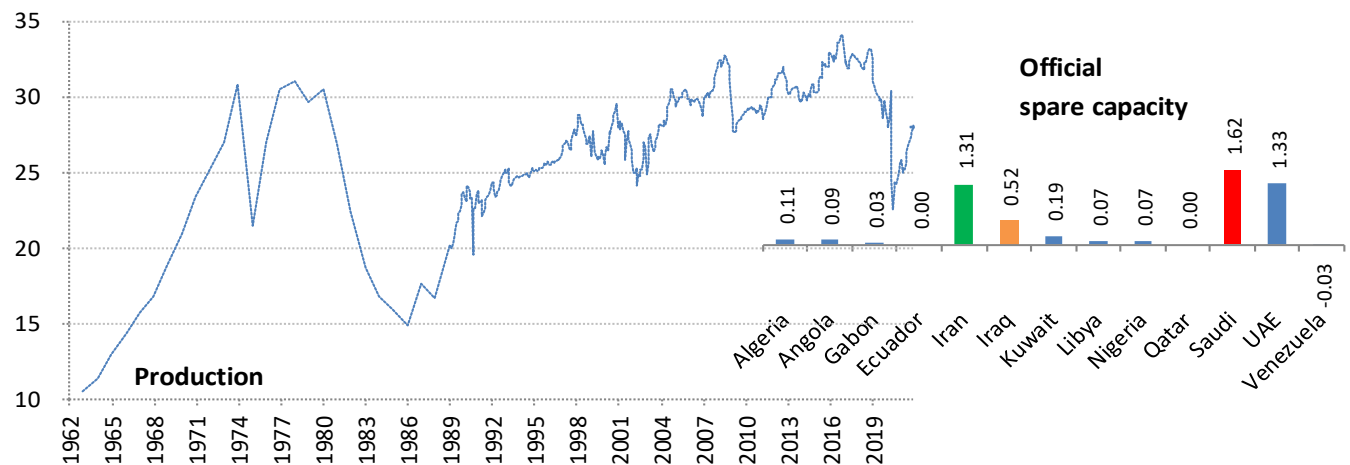
Millions of barrels/day — Actual — — Forecast



Source: DOE EIA Short Term Energy Outlook, TrendMacro calculations

OPEC: what it's producing, what's left to produce

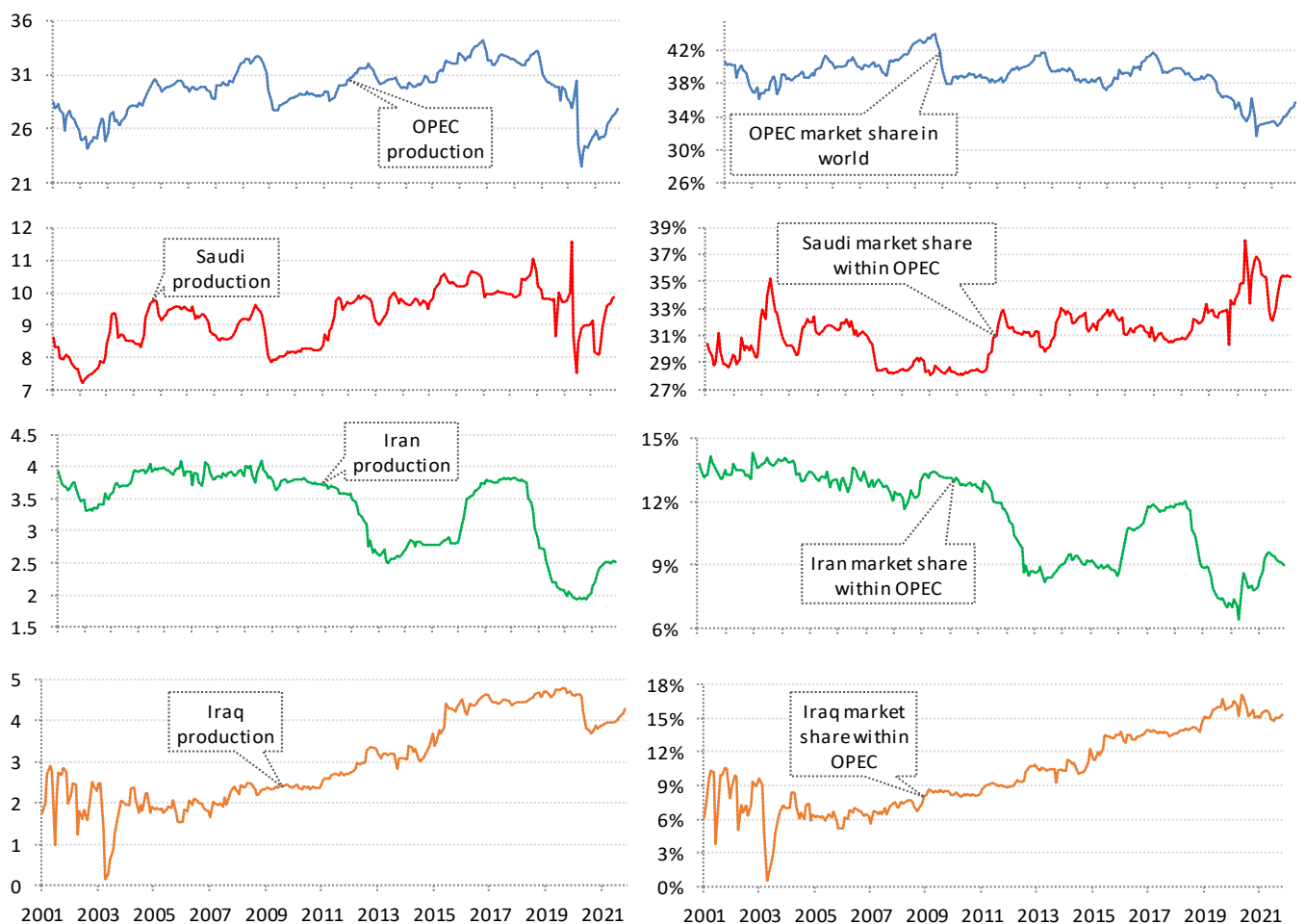
Millions of barrels/day



Source: Bloomberg News, TrendMacro calculations

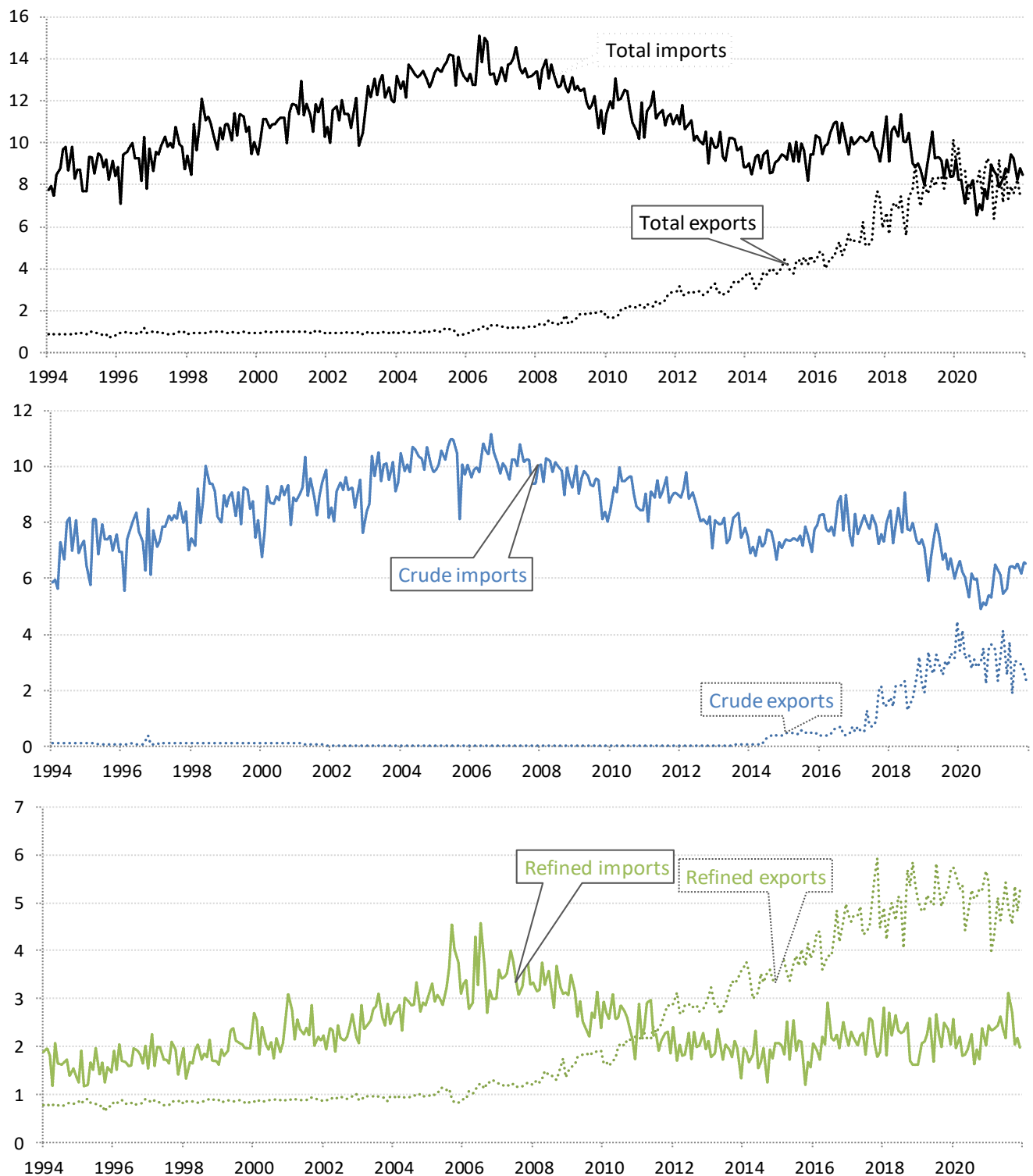
OPEC's battle for market share

Millions of barrels/day



Source: Bloomberg News, TrendMacro calculations

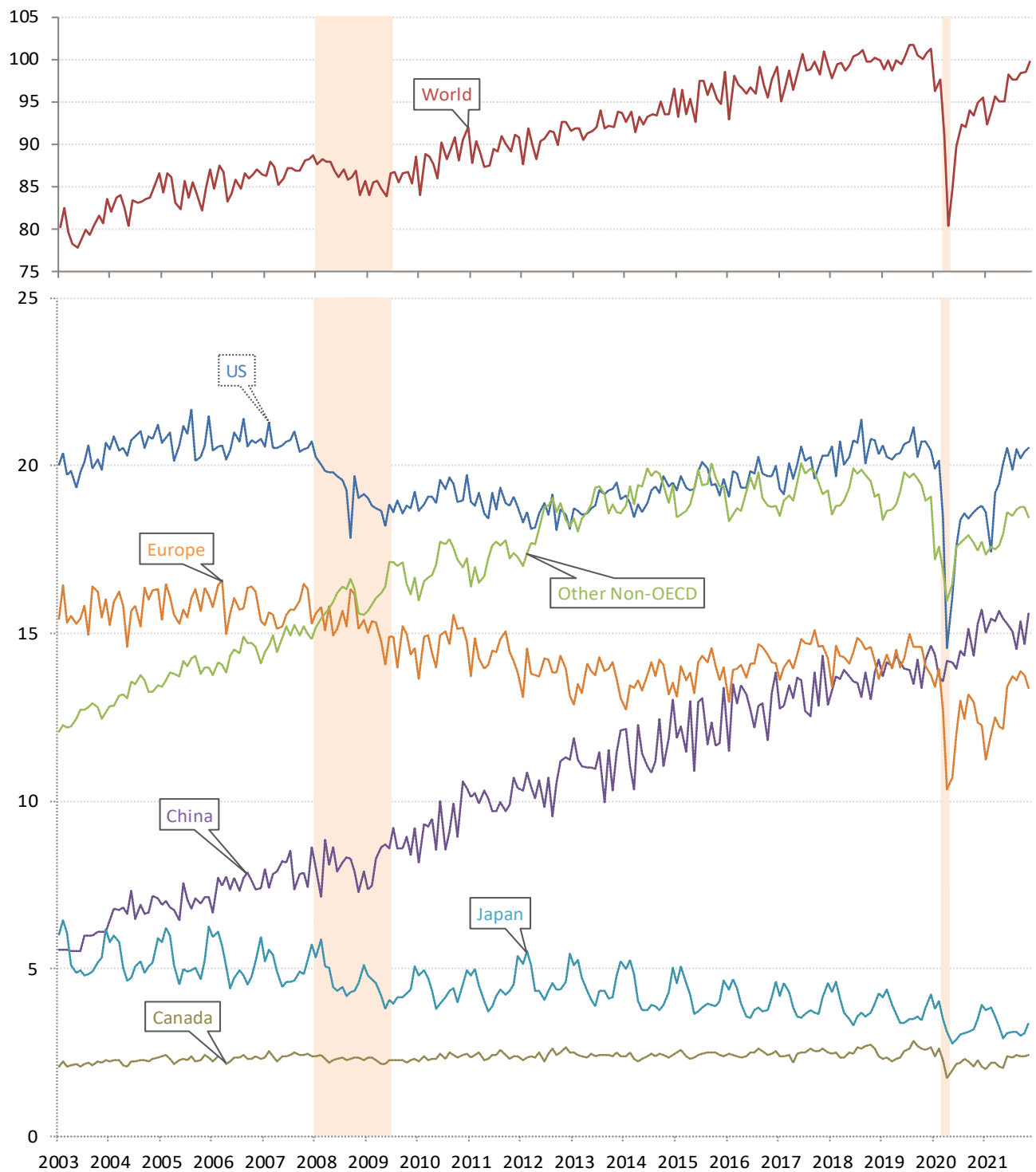
US petroleum imports and exports Millions of barrels/day



Source: DOE Weekly Petroleum Status Report, TrendMacro calculations

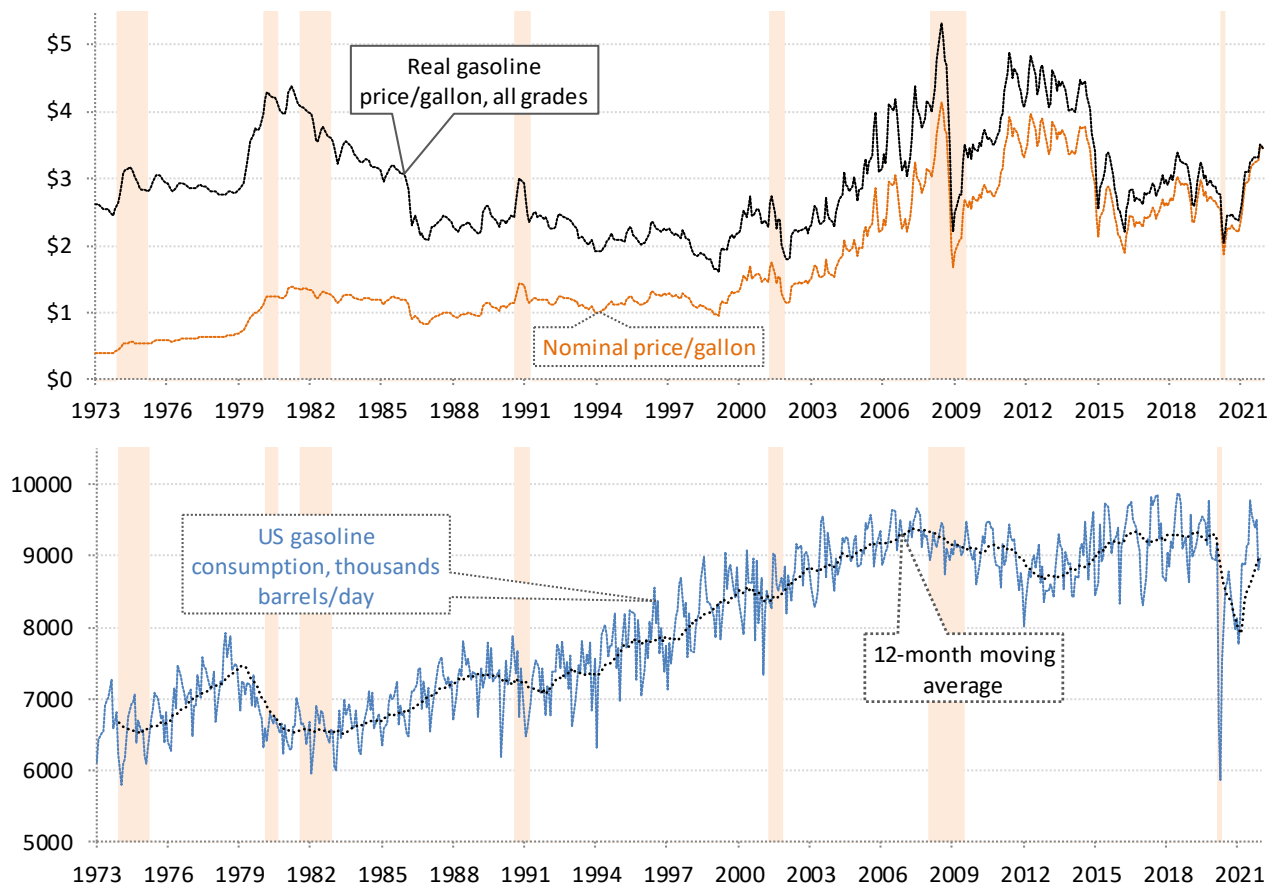
The world of oil consumption Millions of barrels/day

Recession



Source: DOE EIA Short Term Energy Outlook, TrendMacro calculations

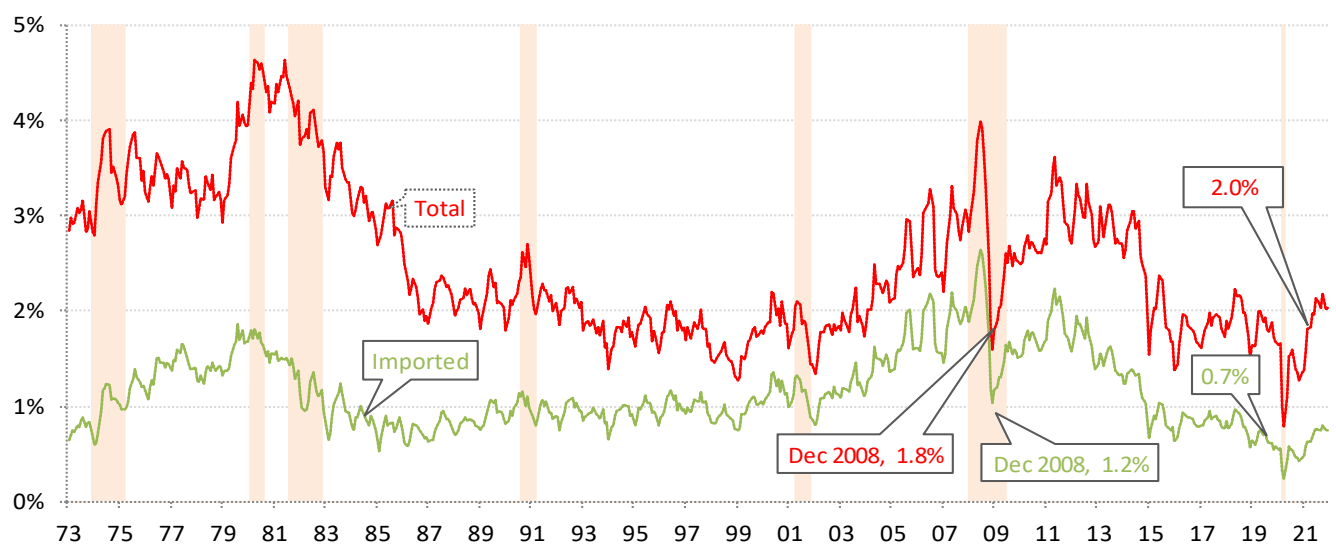
US gasoline: building back from a mobility implosion



Source: DOE EIA Weekly Petroleum Status Report, Weekly Retail Gasoline Survey, TrendMacro calculations

The rubber meets the road: US gasoline spending as share of GDP

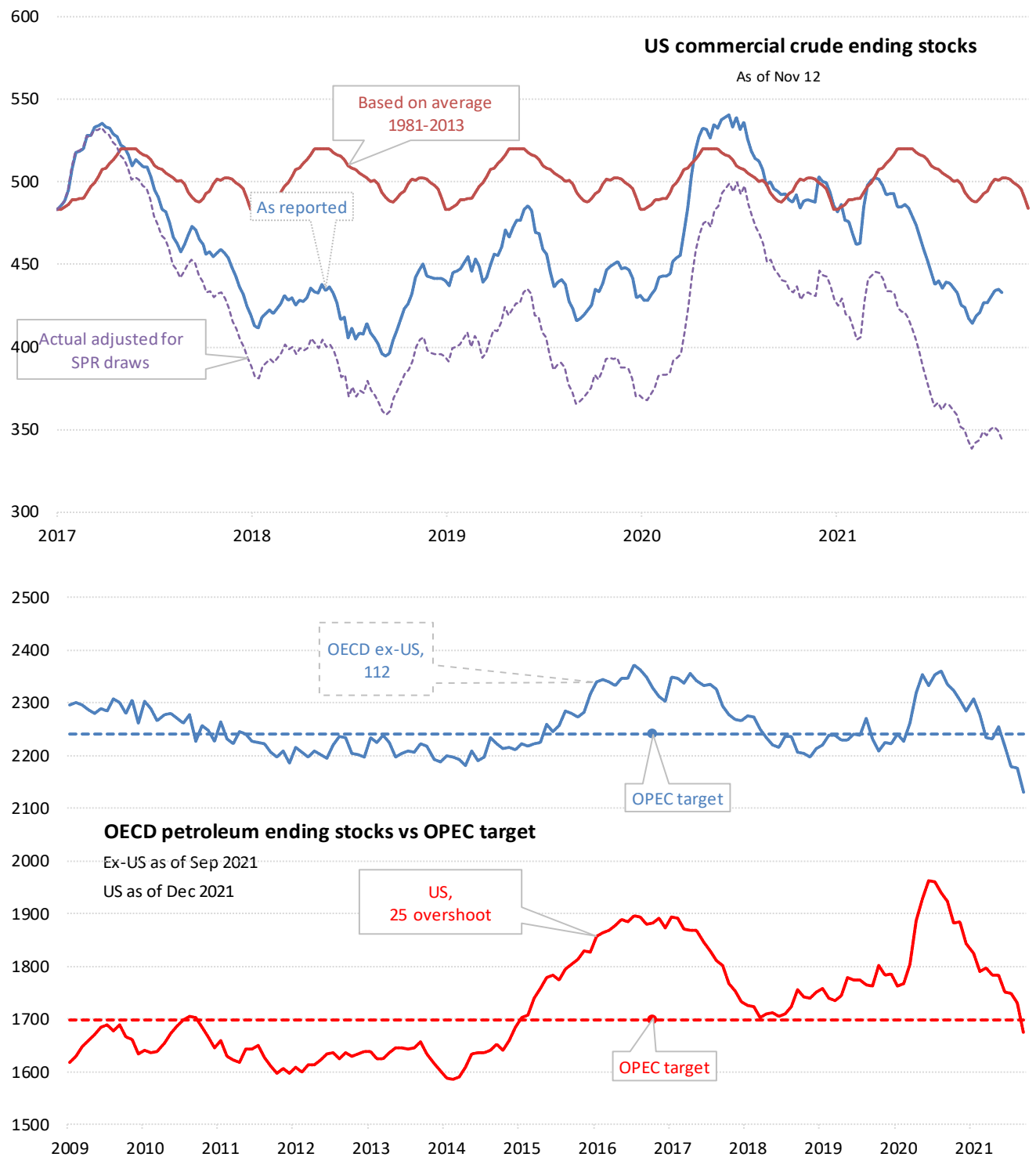
Recession



Source: BEA, DOE EIA, TrendMacro calculations

The mirror of apparent demand: long-term storage dynamics

Millions barrels










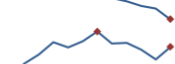
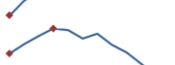







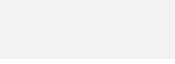


Source: DOE EIA Weekly Petroleum Status Report, JODI, TrendMacro calculations

Data Insights: Jobs

Friday, December 3, 2021

Today's jobs data: what you need to know

Non-farm payrolls	Change Nov: +210	Revision Oct: +15	Revision Sep: +67	
Private payrolls	Change Nov: +235	Revision Oct: +24	Revision Sep: +59	
Employment	Change Nov: +1136			
Unemployment	Change Nov: -542			
Long-term unemployment	Change Nov: -119			
Civilian labor force	Change Nov: +594	1.47 million below trend	More than all entrants employed	
Unemployment rate	Nov: 4.24%	Change Nov: -0.35%		
Underemployment rate	Nov: 7.8%	Change Nov: -0.5%		
Participation rate	Nov: 61.8%	Change Nov: +0.2%		
UE adjusted for participation	Nov: 10.3%	Change Nov: -0.62%		
Average weeks unemployed	Nov: 28.9	Change Nov: +2.2		
% longterm unemployed	Nov: 32.1%	Change Nov: +0.5%		
Aggregate hours worked index	Nov: 110.7	Change Nov: +0.5%	Revision Oct: +0	
Average hourly earnings	Nov: +0.26%	Change Nov: -0.10%	Revision Oct: +0.00%	
Aggregate weekly earnings	Nov: 164.2	Change Nov: +0.7%	Revision Oct: unch	
Monthly job-finding probability	Nov: 33.9%	Change Nov: +3.4%		
Monthly separation probability	Nov: 1.5%	Change Nov: -0.1%		
% involuntary part-time	Nov: 2.8%	Change Nov: -0.1%		
"Household" vs "Payroll" jobs	Change Nov: +1699			

Source: Bureau of Labor Statistics, TrendMacro calculations

For more information contact us:

Donald Luskin: 312 273 6766 don@trendmacro.com
Thomas Demas: 704 552 3625 tdemas@trendmacro.com

Today's jobs data: a deeper dive

Non-farm payrolls SA	Change Nov: +210	Revision Oct: +15	Revision Sep: +67	
Non-farm payrolls NSA	Change Nov: +778	Revision Oct: +18	Revision Sep: -9	
Birth-death adjustment	Change Nov: +12			
Employment	Change Nov: +1136			
Unemployment rate	Nov: 4.24%	Change Nov: -0.35%		
White employment	Change Nov: +647			
White unemployment rate	Nov: 3.7%	Change Nov: -0.3%		
Black employment	Change Nov: +169			
Black unemployment rate	Nov: 6.7%	Change Nov: -1.2%		
Hispanic employment	Change Nov: +502			
Hispanic unemployment rate	Nov: 5.2%	Change Nov: -0.7%		
Asian employment	Change Nov: +58			
Asian unemployment rate	Nov: 3.8%	Change Nov: -0.4%		
HS only employment	Change Nov: +57			
HS only unemployment rate	Nov: 4.9%	Change Nov: -0.2%		
Men employment	Change Nov: +541			
Men unemployment rate	Nov: 4.2%	Change Nov: -0.3%		
Women employment	Change Nov: +595			
Women unemployment rate	Nov: 4.3%	Change Nov: -0.4%		

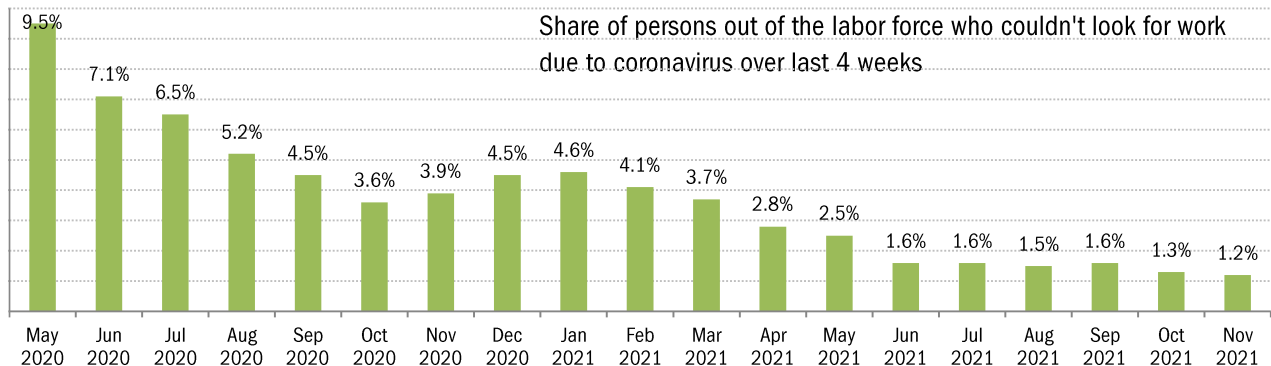
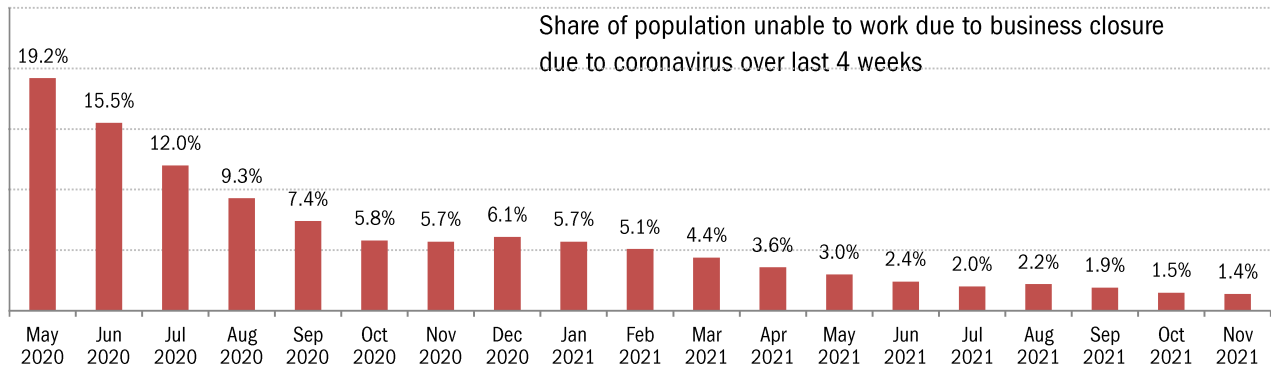
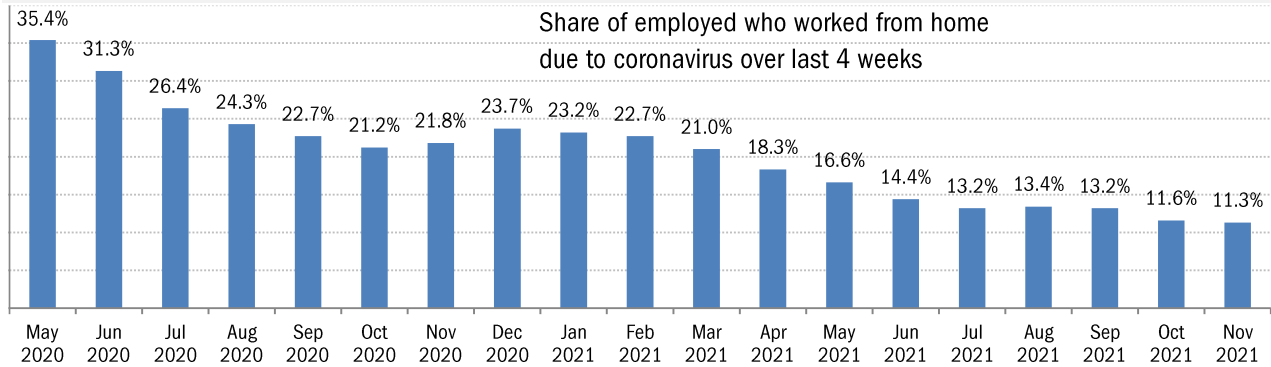
Source: Bureau of Labor Statistics, TrendMacro calculations

TrendMacro Payroll Model based on contemporaneous labor market statistics

ADP Payrolls	ISM Manu Employ Index	ISM Services Employ Index	Change continuing claims	Initial claims	Challenger Layoffs	NFIB Hiring Plans	NFIB Employ
+534	53.3	51.6	-518	271	14875	25	-2
Model estimate	Actual	Actual beat(+) or miss (-)					
+322	+210	-112					

Source: ADP, ISM, DOL, Challenger, NFIB, BLS, TrendMacro calculations

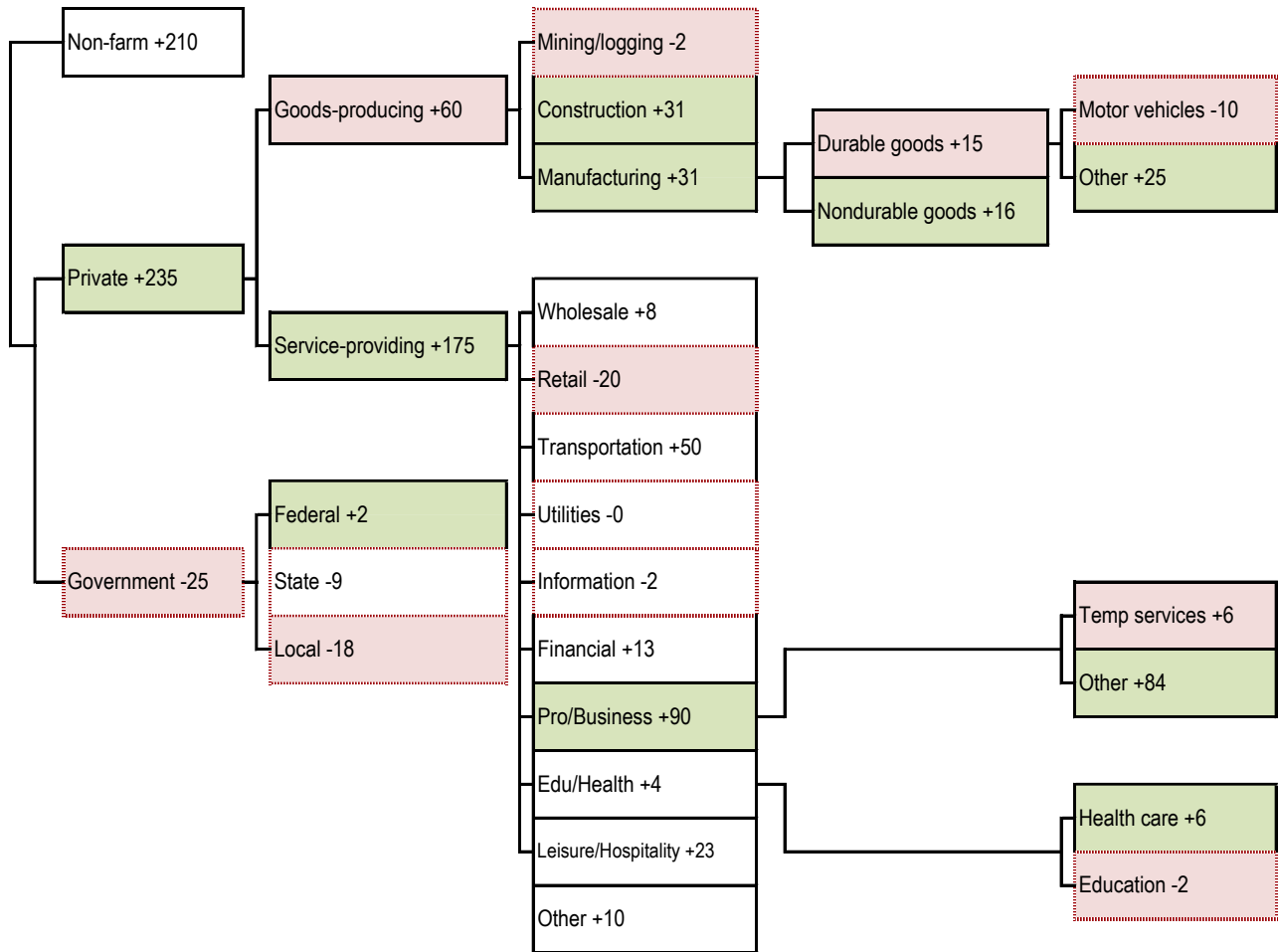
Labor market adaptation to pandemic conditions



Source: [BLS](#), TrendMacro calculations

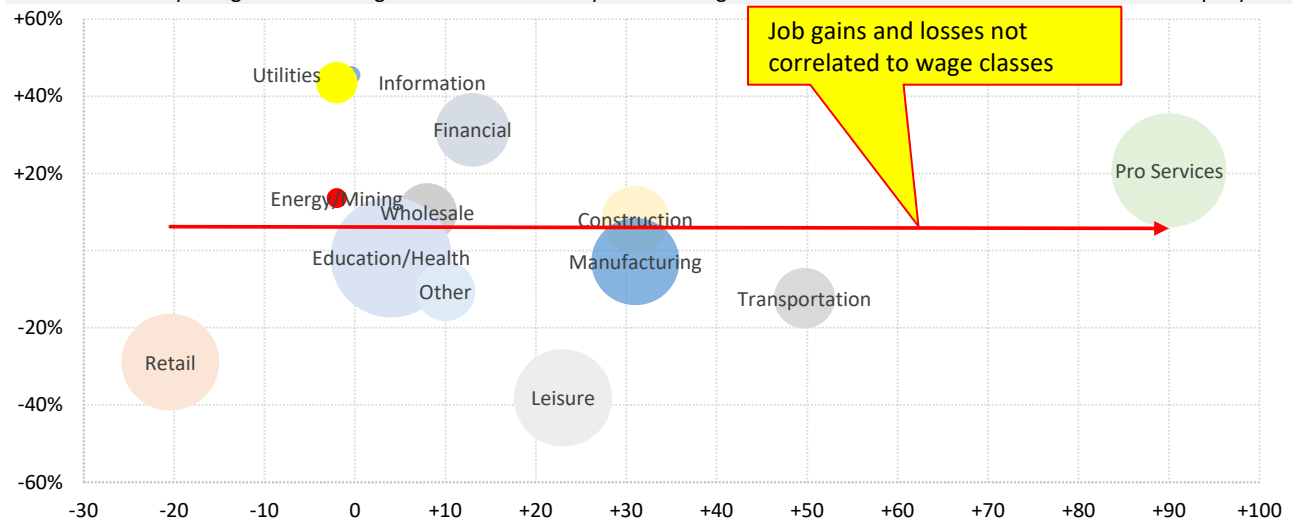
Today's payroll data: what you need to know -- where did the jobs come from?

Sequential month change, thousands SA --- Net job losses Biggest change per detail module: ■ best ■ worst



Where is the pay coming from?

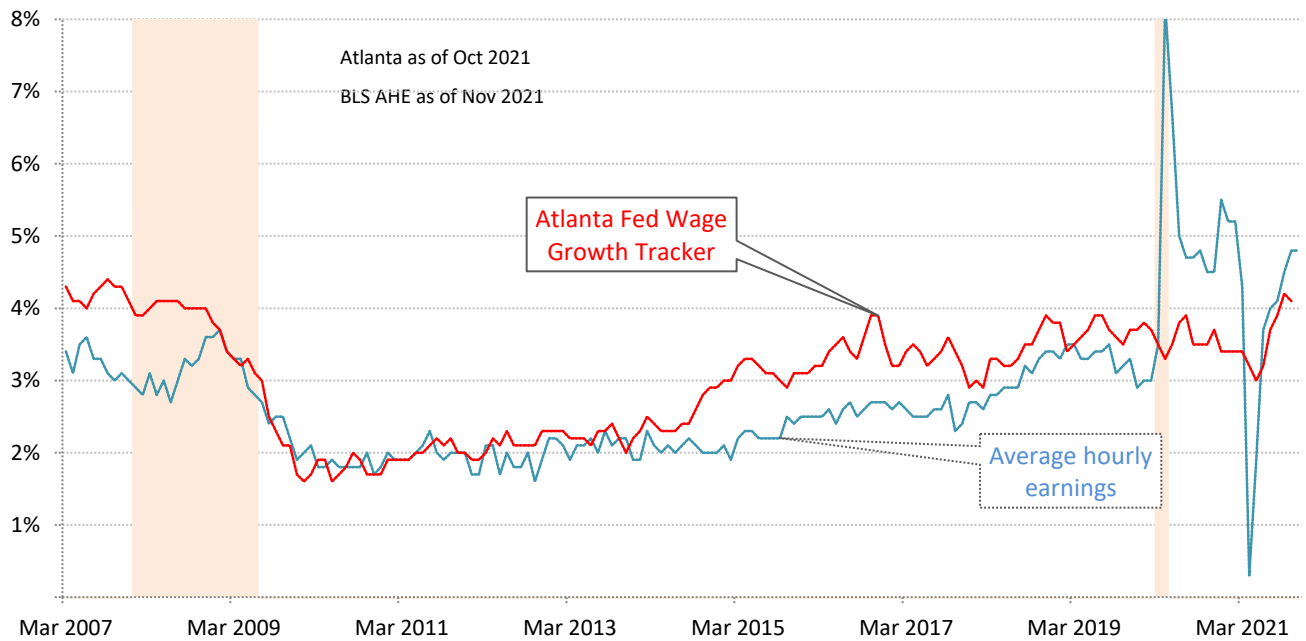
Vertical: Hourly wages vs average Horizontal: Payrolls change this month Circle size: Share of all employment



Source: BLS, TrendMacro calculations

Solving the wage-growth puzzle

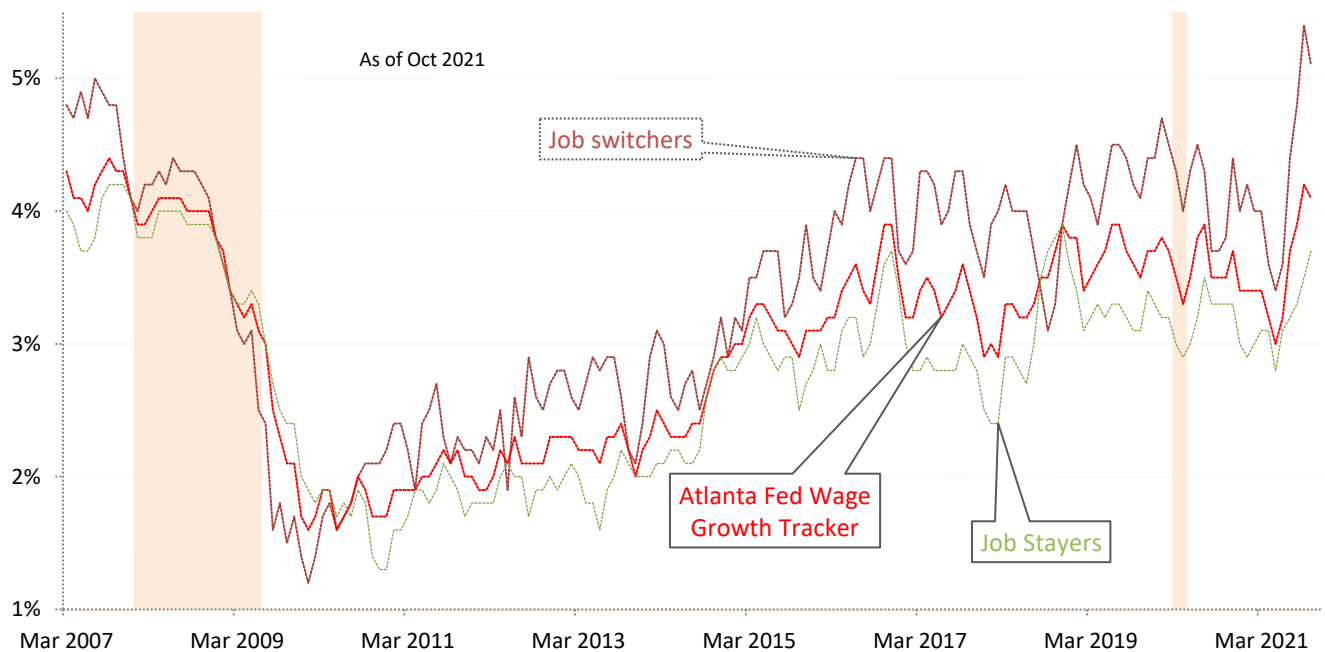
YOY average hourly earnings growth Atlanta Fed Wage Growth Index Recession



Source: BLS Current Employment Statistics, Atlanta Federal Reserve Bank, TrendMacro calculations

The wages of dynamism

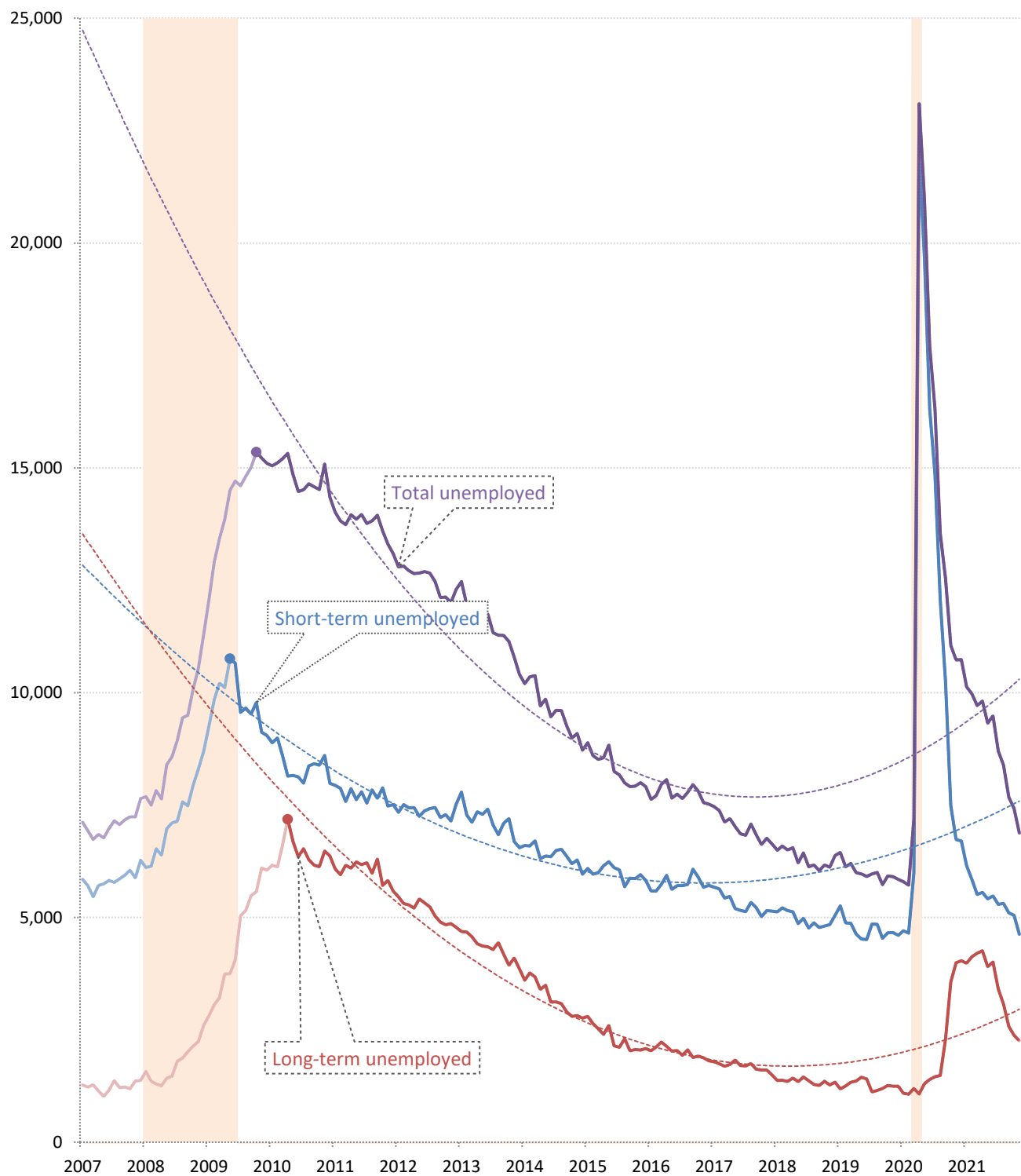
YOY wage growth for steady employees, versus those who change jobs Recession



Source: Atlanta Federal Reserve Bank, TrendMacro calculations

The Great Recession, the jobless recovery, the long boom, and then the virus

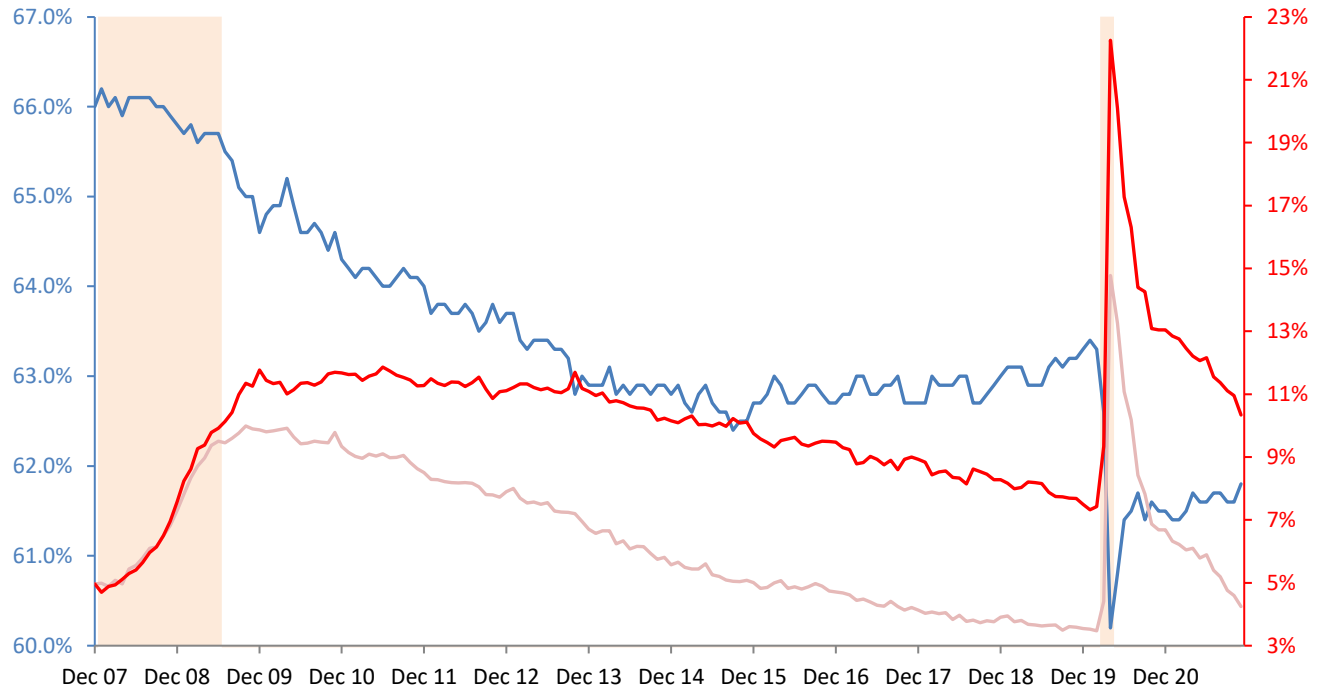
Unemployment: thousands Short-term = <27 weeks Long-term = >27 weeks



Source: BLS Current Population Survey, TrendMacro calculations

Unemployment rate normalized for participation rate December 2007

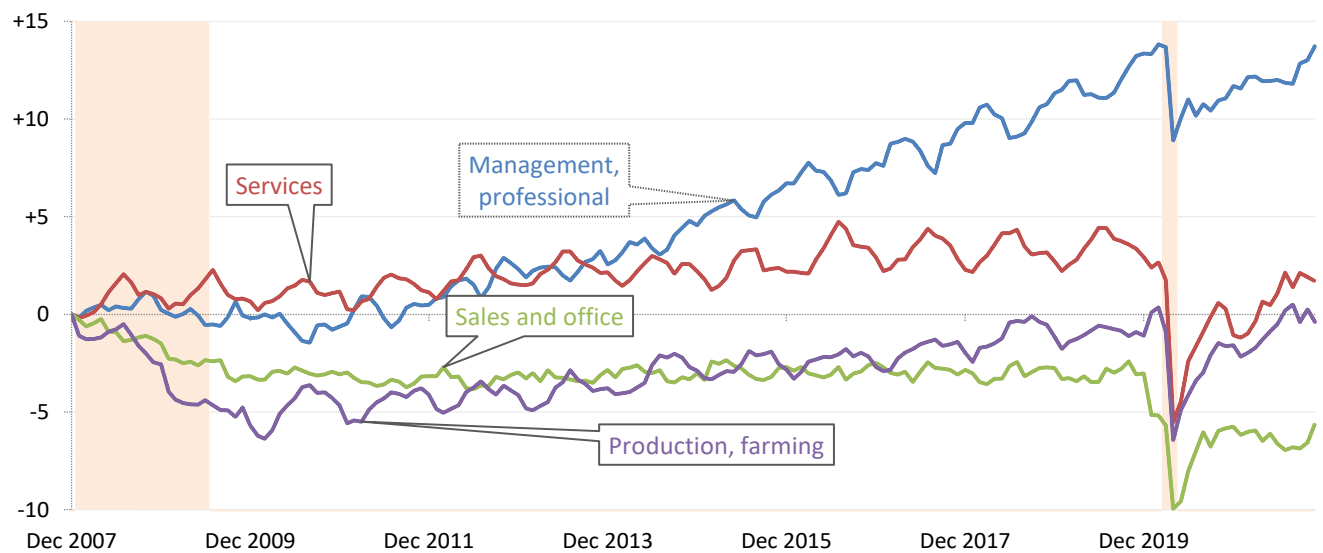
Participation rate Headline unemployment rate Recession



Source: BLS Current Population Survey, TrendMacro calculations

Winner and losers in the long boom and the virus crisis

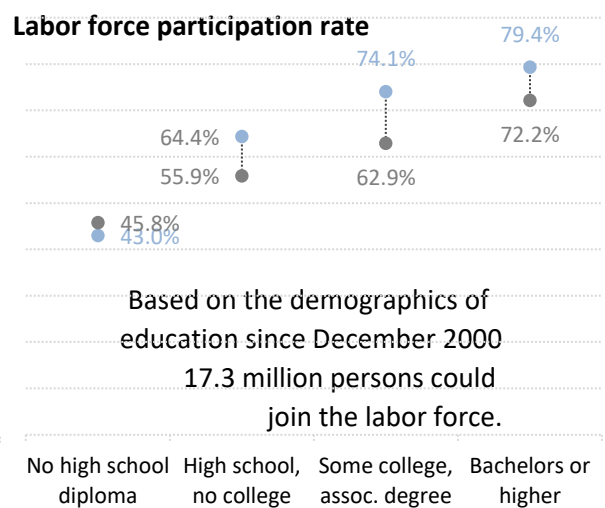
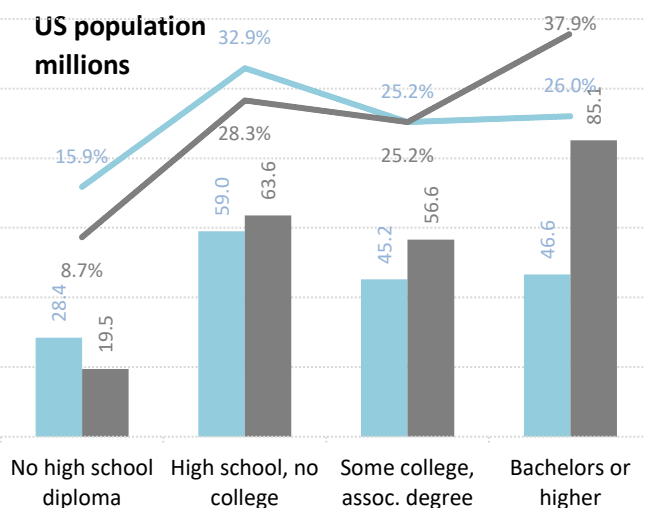
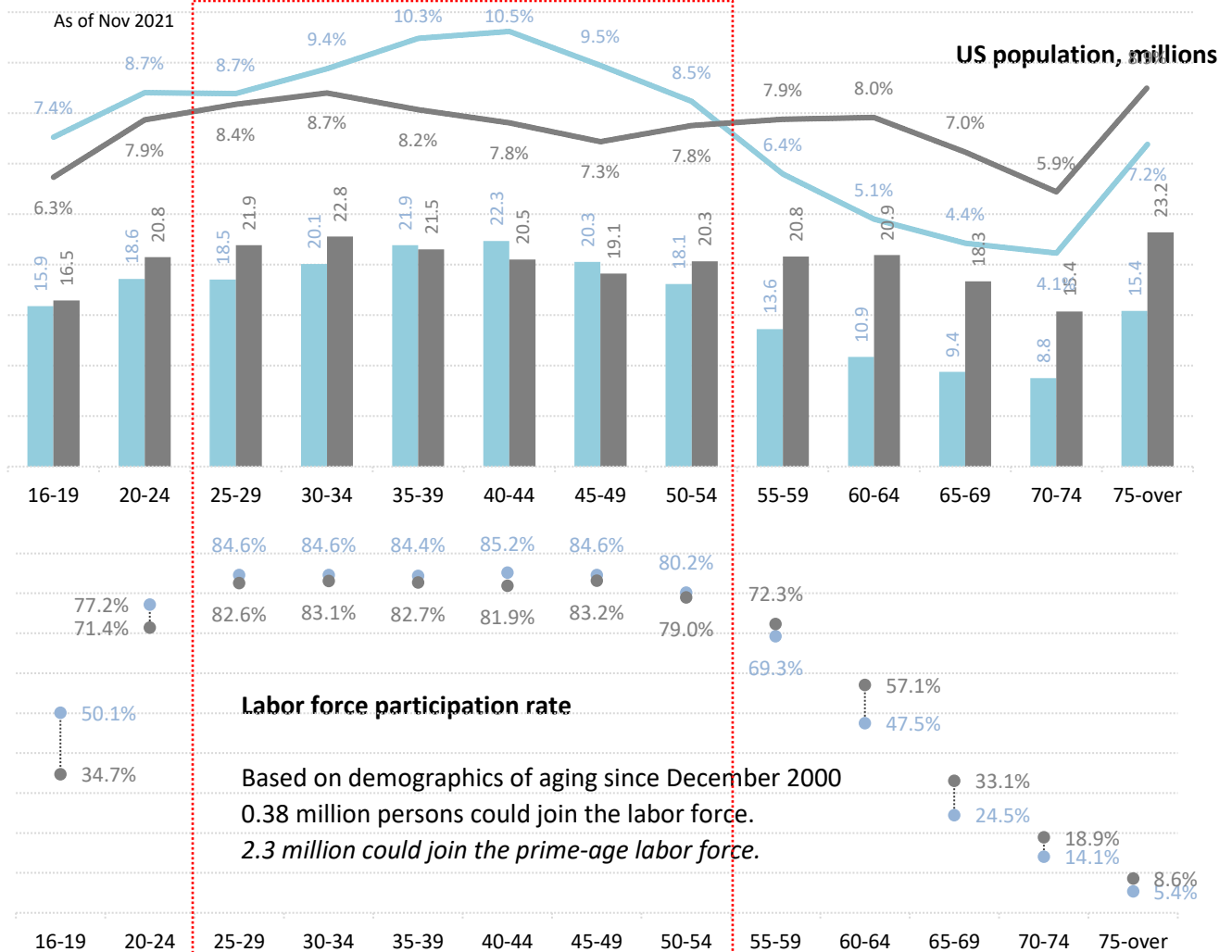
Change in total payrolls from prior business cycle peak, millions



Source: BLS, NBER, TrendMacro calculations

US labor force demographics: fading baby boom and its well-educated echo

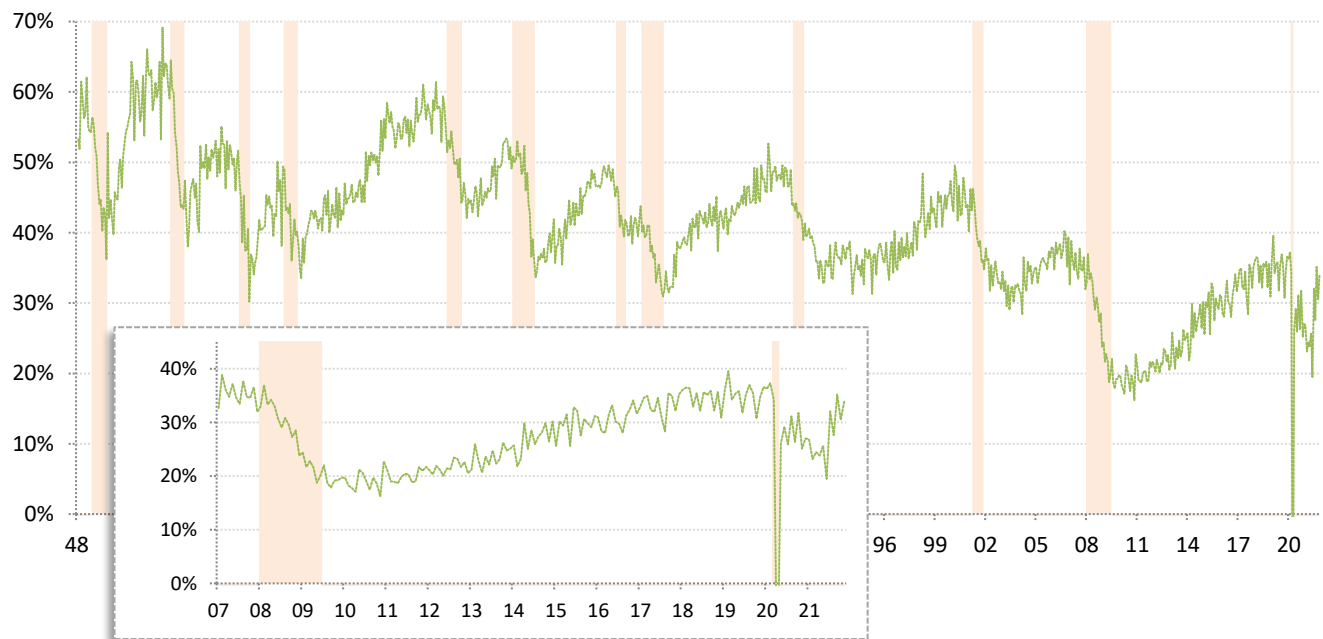
By age and education bracket: ■ Dec 2000, peak in the labor force participation rate ■ Latest □ Prime age



Source: BLS Current Population Survey, TrendMacro calculations

Monthly job-finding probability (the outflow rate from unemployment)

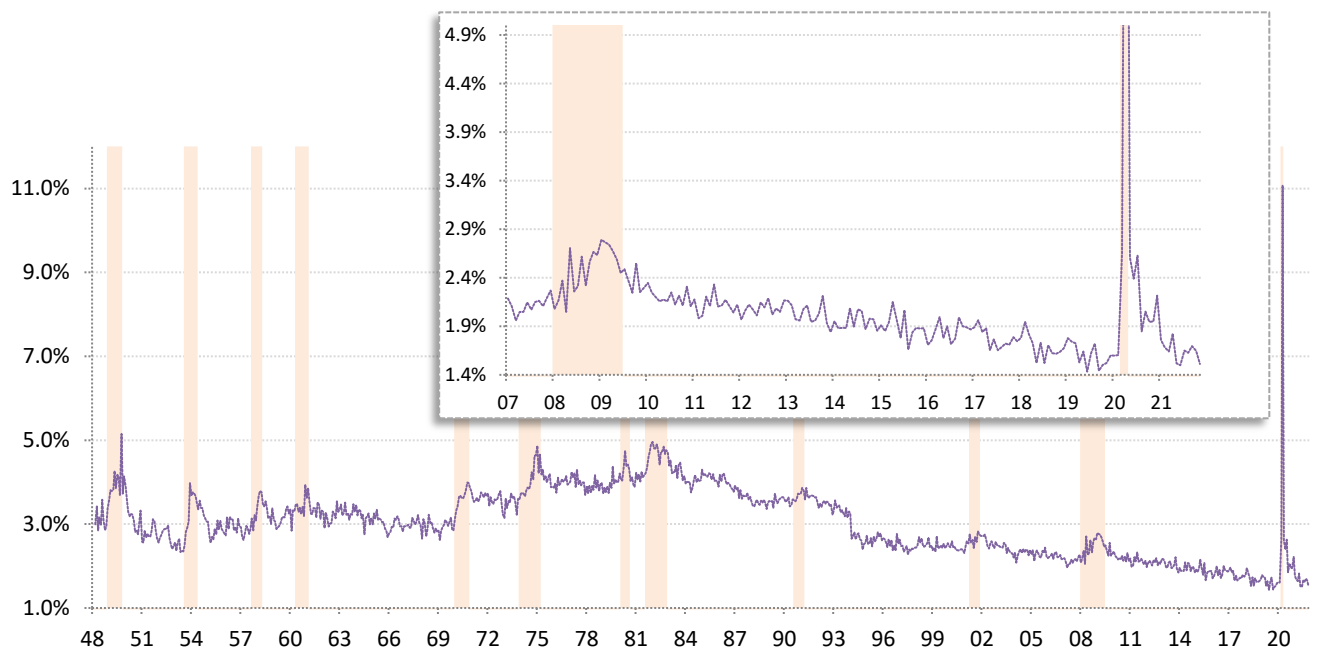
Chance of an unemployed person becoming employed in one month (per [Shimer 2005](#)) Recession



Source: BLS Current Population Survey, TrendMacro calculations

Monthly job-separation probability (the inflow rate to unemployment)

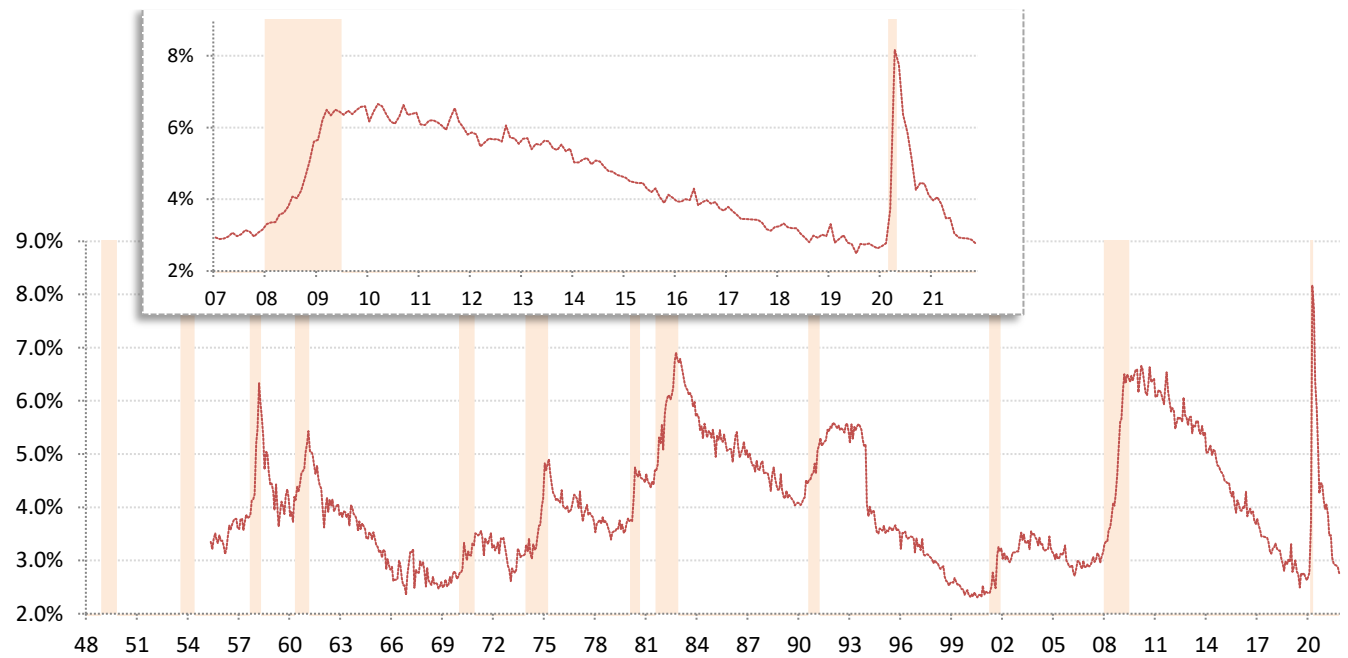
Chance of an employed person becoming unemployed in one month (per [Shimer 2005](#)) Recession



Source: BLS Current Population Survey, TrendMacro calculations

Involuntary part-time workers as percentage of the employed labor force

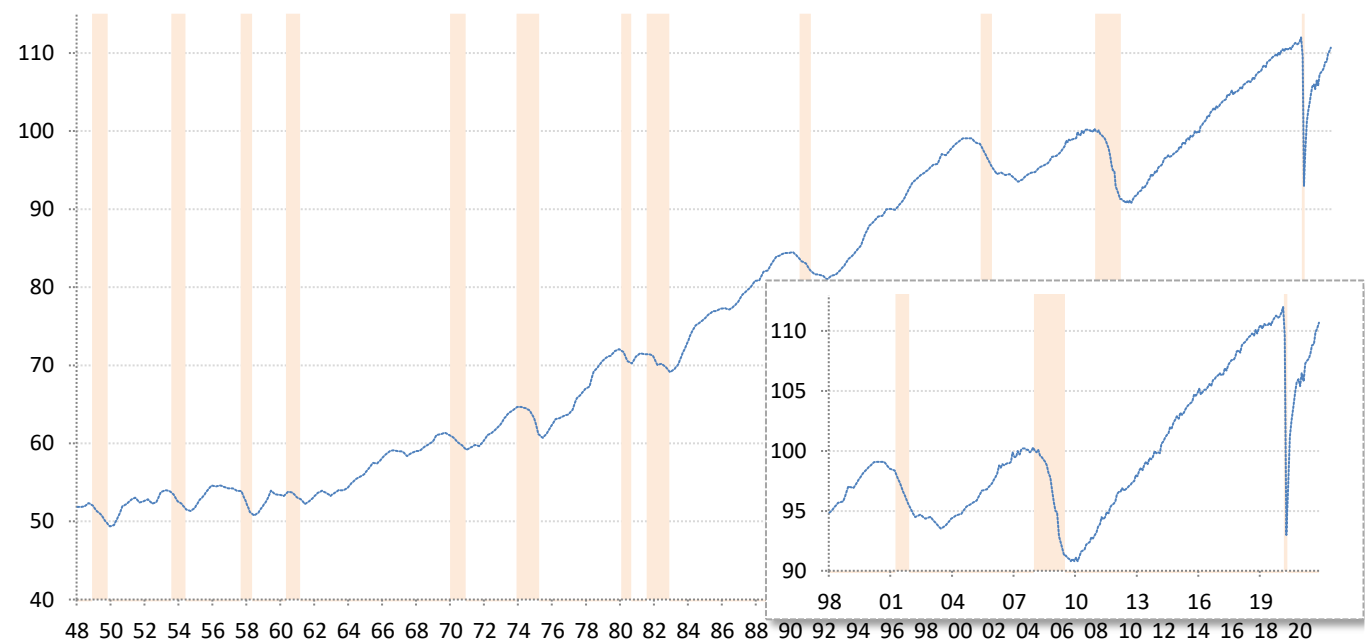
Persons available for full-time work Recession



Source: BLS Current Population Survey, TrendMacro calculations

Aggregate weekly private hours-worked index

Recession



Source: BLS Productivity and Costs (quarterly) and Current Employment Stats (recent monthly), TrendMacro calcs

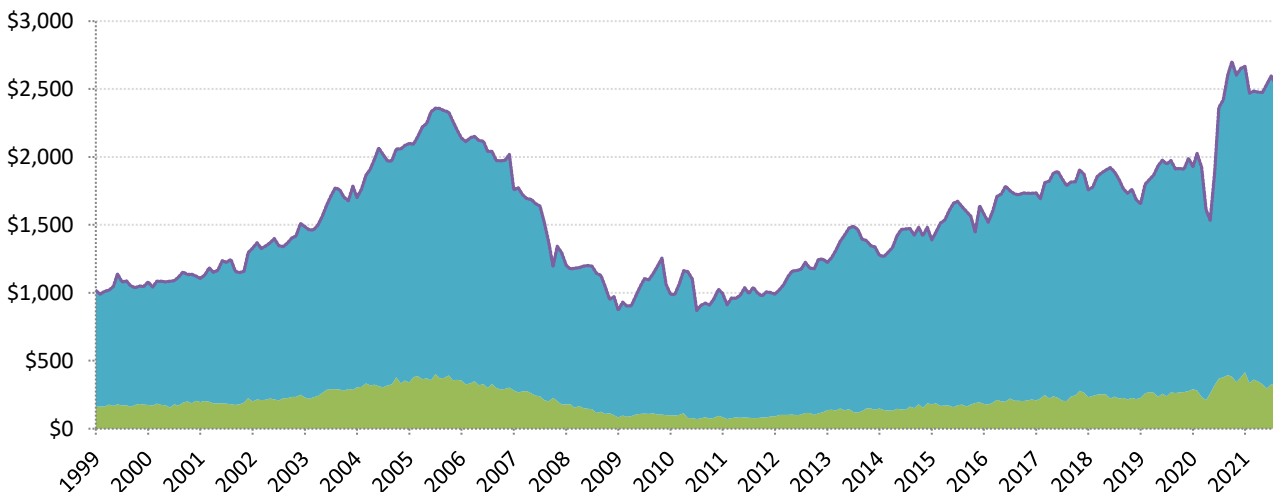
Data Insights: A Few of Our Favorite Things

Wednesday, November 24, 2021

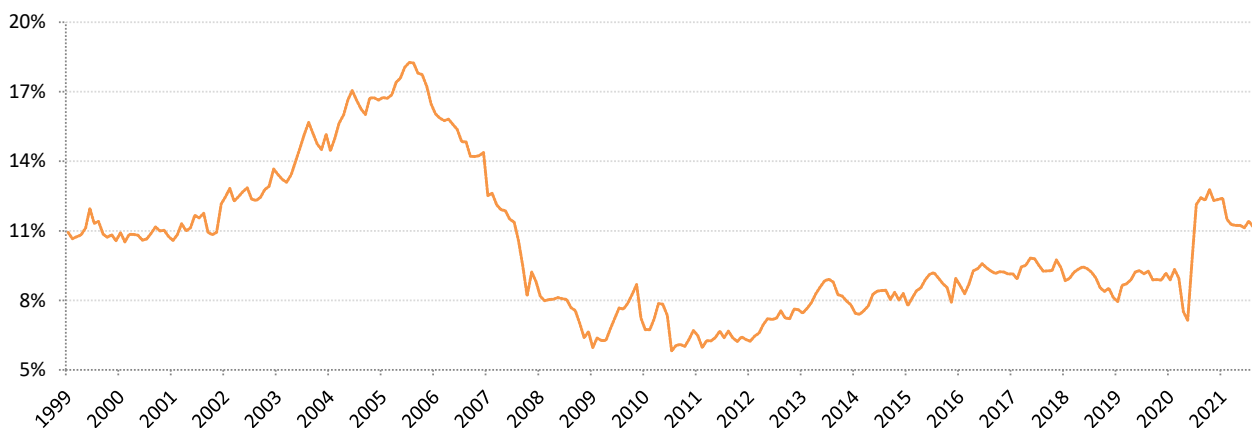
Mid-frequency growth indicators not already covered in other regular reports.

Valuing the housing recovery: TrendMacro Housing Transaction Value Aggregate

— Total — Existing homes component — New homes component USD billions, nominal, SAAR



— TrendMacro Housing Transaction Value Aggregate: Total as percentage of GDP



Source: Census Bureau, National Assoc. of Realtors, Bureau of Economic Analysis, TrendMacro calculations

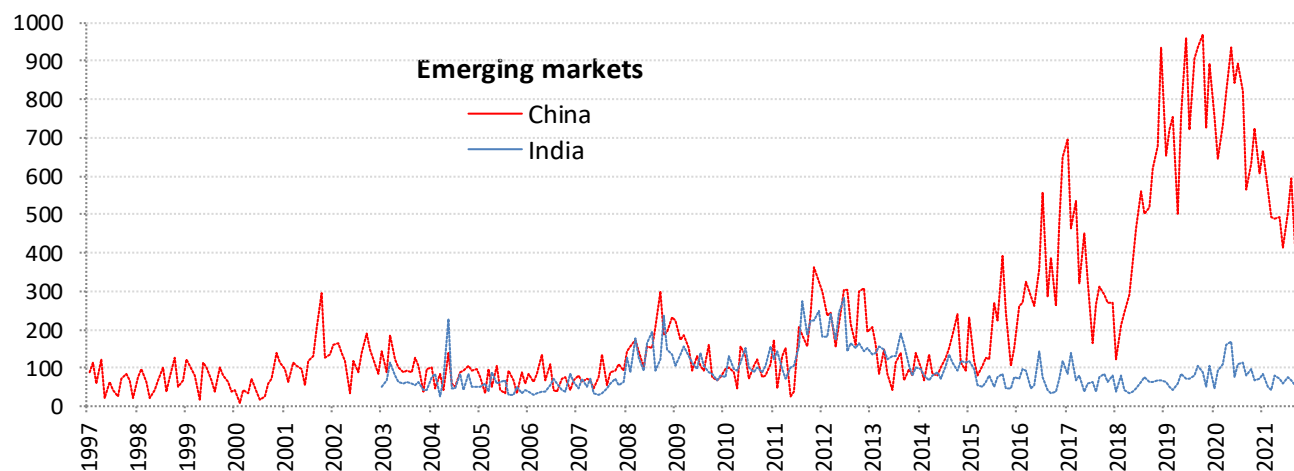
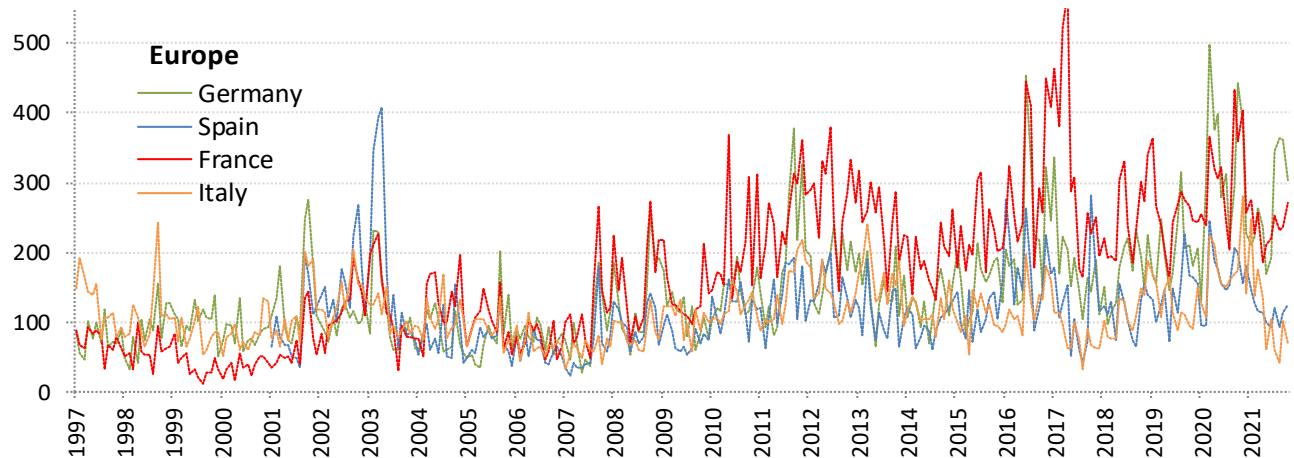
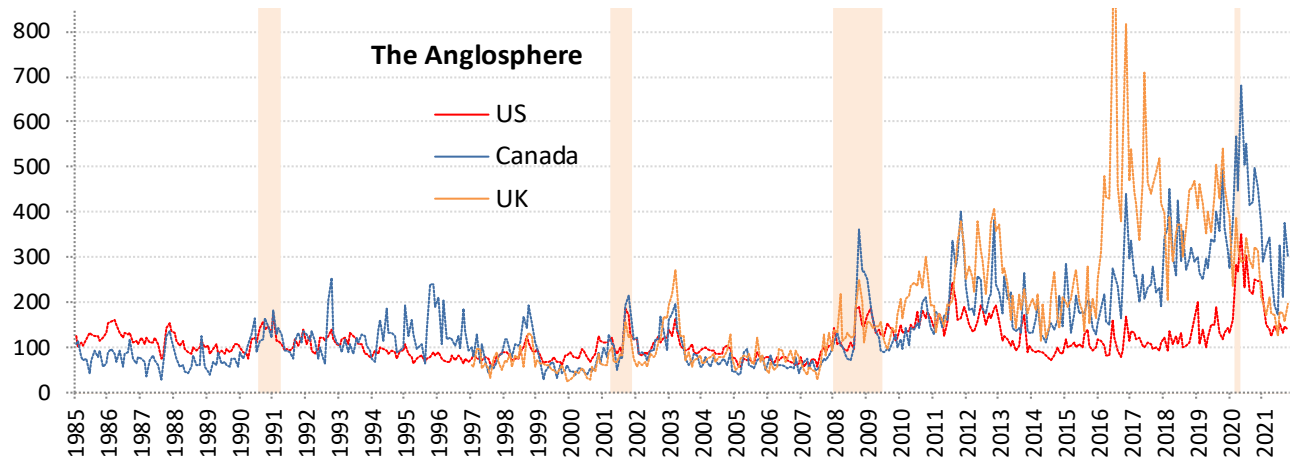
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 Thomas Demas: 704 552 3625 tdemas@trendmacro.com

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The drag on animal spirits: tracking the burden of economic policy uncertainty

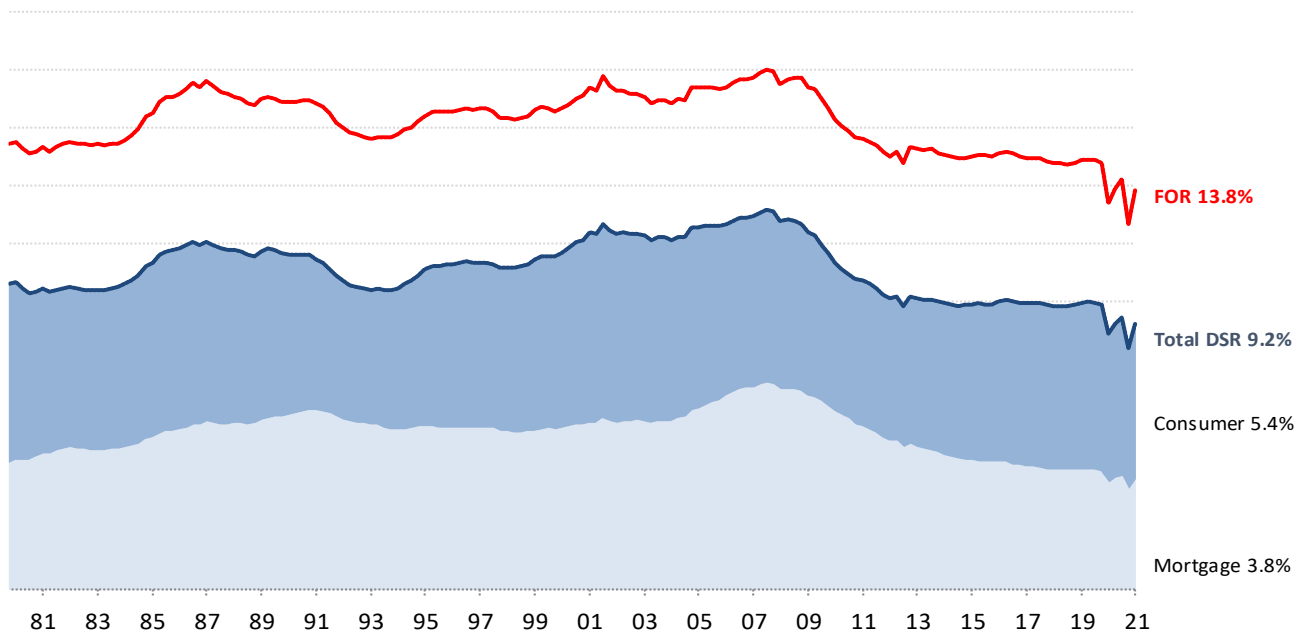
Economic Policy Uncertainty indices After [Baker, Bloom and Davis \(2015\)](#) US recession



Source: Baker, Bloom and Davis, TrendMacro calculations

The deleveraged consumer: Financial obligation and debt service ratios

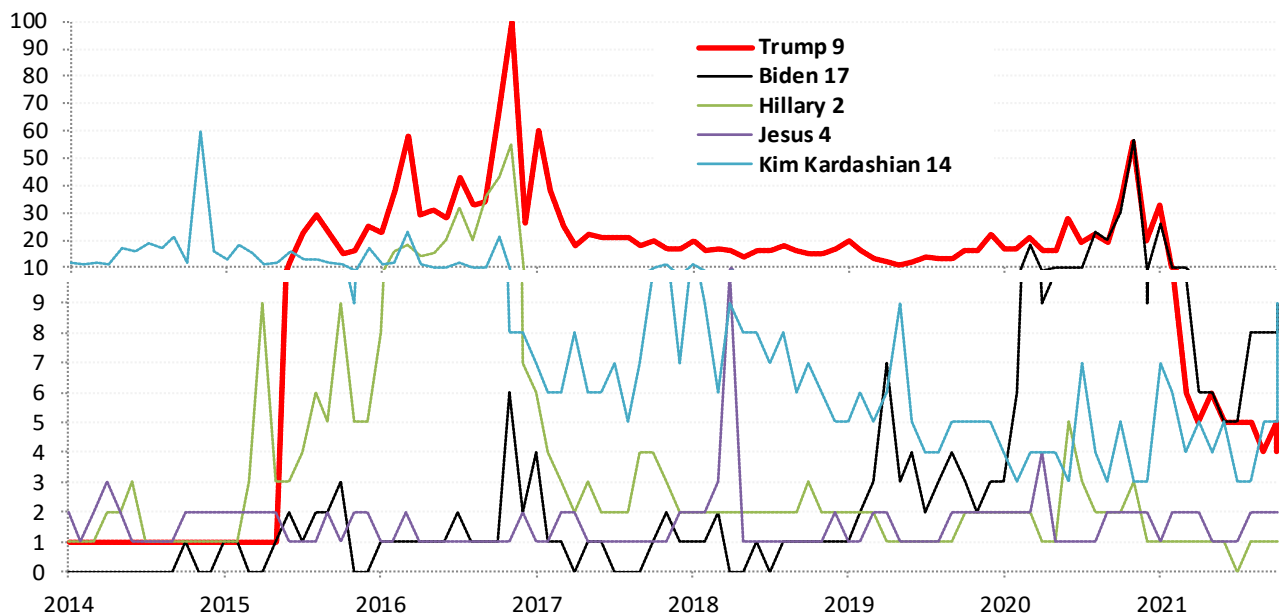
Payments of mortgage and consumer debt, automobile leases, home rental and insurance, and property taxes as percentage of after-tax income.



Source: Federal Reserve, TrendMacro calculations

Biden fights the ghost of Trump for public mindshare

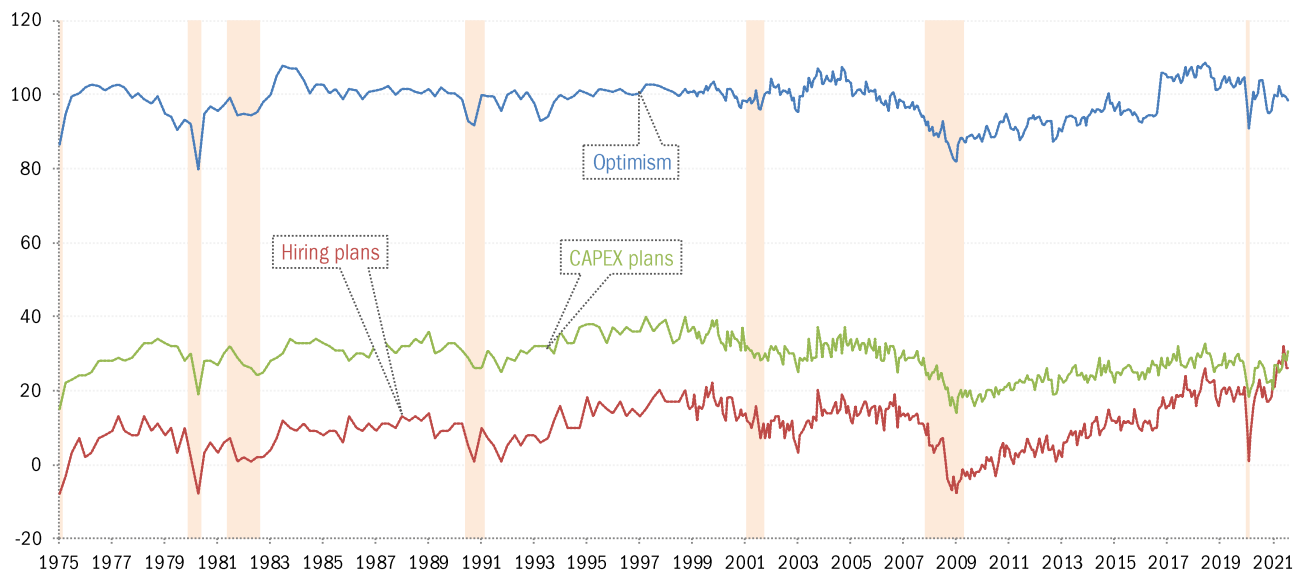
Google search requests, normalized to 100



Source: Google Trends, TrendMacro calculations

The drive-train of job creation: Small business optimism and growth plans

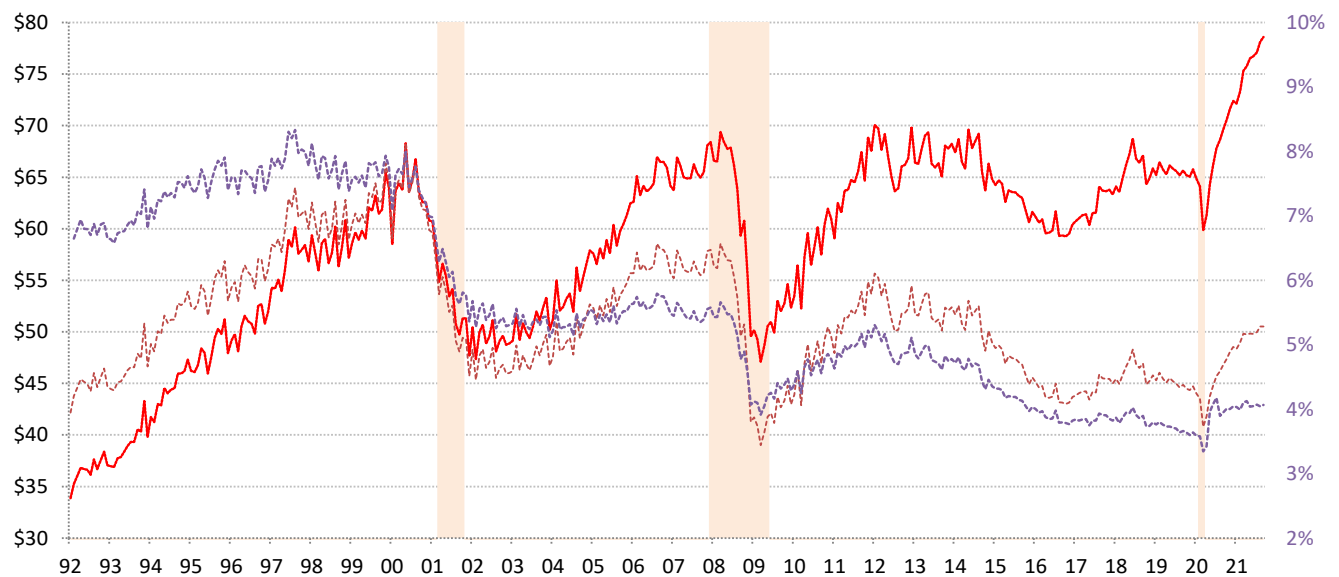
Surveys by National Federation of Independent Business



Source: NFIB, NBER, TrendMacro calculations

Precursor of the precursor of growth: orders for non-defense cap goods, ex-air

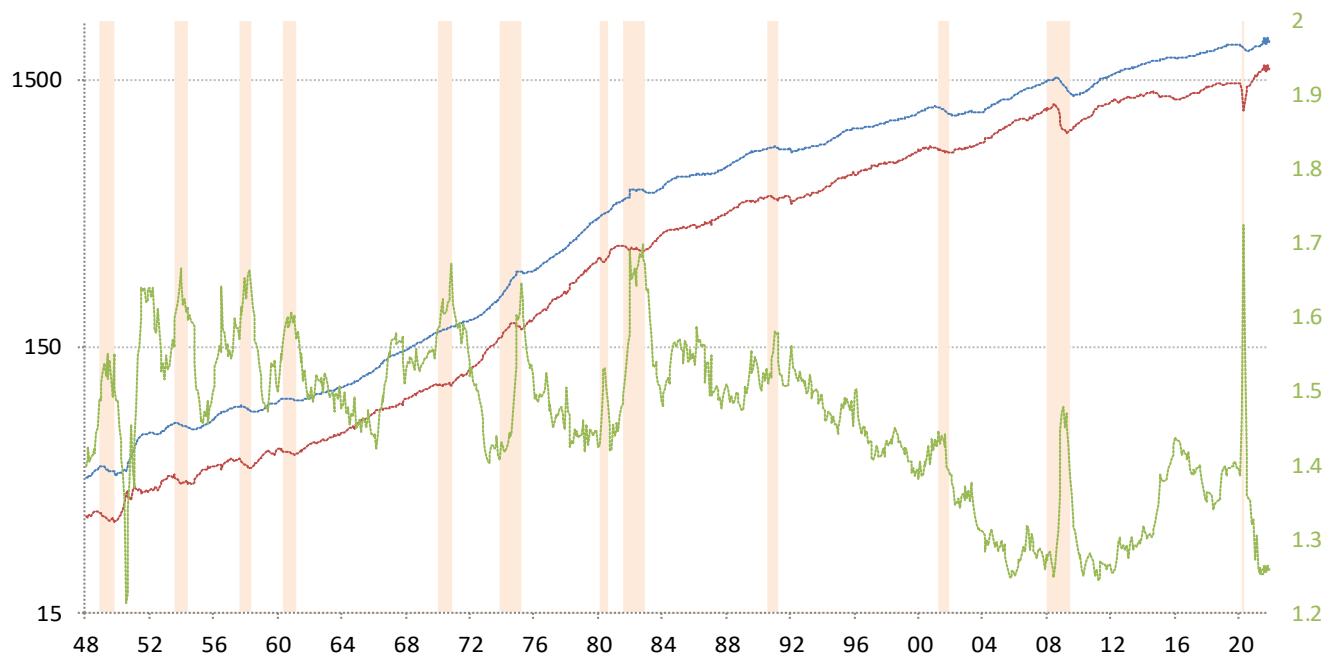
USD billions, SA — Nominal — Real — Percent GDP



Source: Census Bureau, Bureau of Labor Statistics, NBER, TrendMacro calculations

The Wal-Mart effect: US business inventories

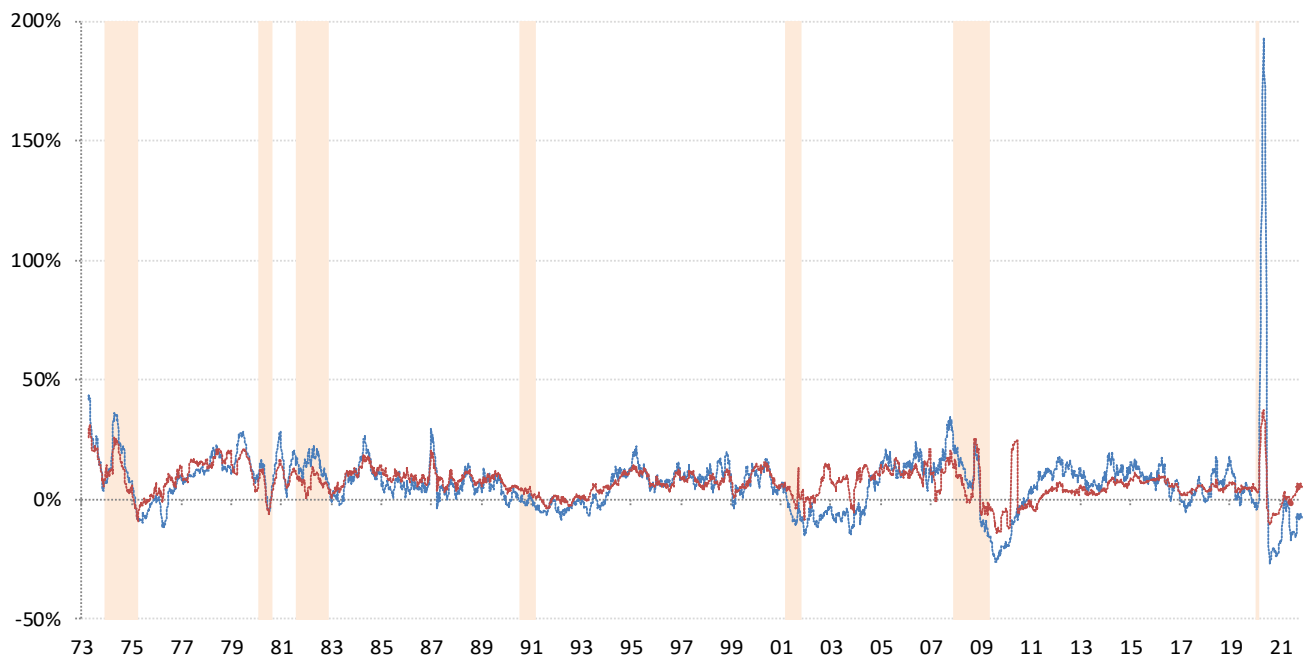
USD billions, log scale — Inventories — Sales — Ratio — Recession



Source: Census Bureau, NBER, TrendMacro calculations

Releveraging US business: lending by commercial banks

13-week annualized growth — Total credit in loans and leases — Commercial and industrial loans — Recession



Source: Federal Reserve, NBER, TrendMacro calculations

Data Insights: Global Equity Risk Premia

Monday, August 2, 2021

NOTE: In September 2016, Standard & Poor's created a new Real Estate sector from stocks that had been in the Financials sector. In October 2018 it converted the Telecom sector to "Communications Services," moving stocks from Info Tech and Consumer Discretionary. These changes distort metrics for those sectors throughout this report. The overall S&P 500 is not affected.

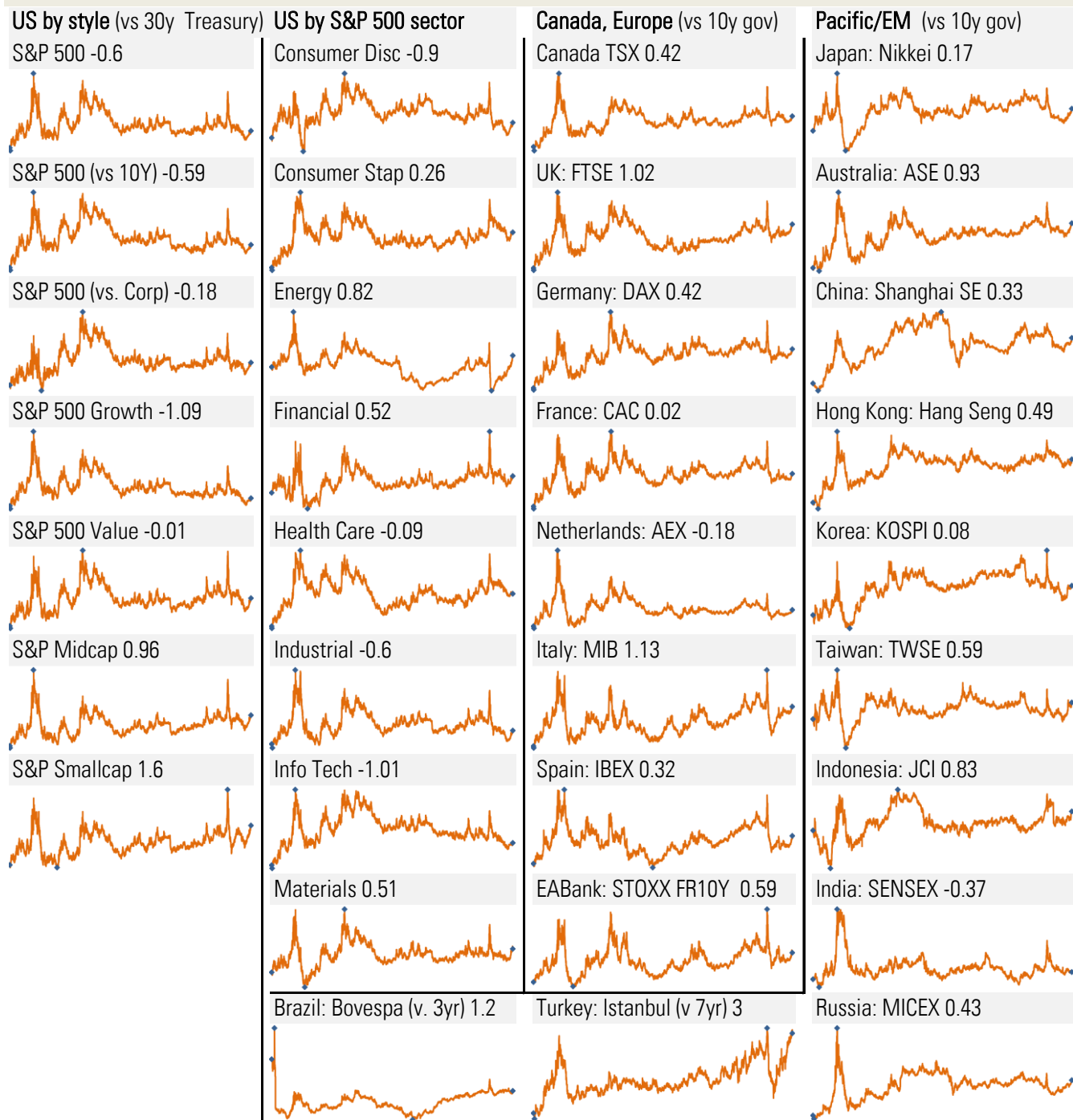
Global leader-board: by equity risk premium, value, and growth ■ Best ■ Worst

Rank	Equity risk premium By SD from 2007-> mean		Forward PE ratio		Fwd earnings upgrade rate Trailing 90 days, AR		Fwd sales upgrade rate Trailing 90 days, AR	
	By country		By country		By country		By country	
1	Turkey: Istanbul	+3.01	Turkey: Istanbul	5.4	Russia: MICEX	+78%	HK: Hang Seng	+49%
2	Brazil: Bovespa	+1.21	Russia: MICEX	6.6	Australia: ASE	+70%	Russia: MICEX	+48%
3	Italy: MIB	+1.13	Brazil: Bovespa	8.7	Spain: IBEX	+67%	Germany: DAX	+33%
4	UK: FTSE	+1.03	Korea: KOSPI	11.3	Taiwan: TWSA	+64%	Indonesia: JCI	+25%
5	Australia: ASE	+0.93	HK: Hang Seng	11.6	Netherlands: AEX	+60%	Netherlands: AEX	+21%
6	Indonesia: JCI	+0.83	China: Shanghai SE	11.6	Brazil: Bovespa	+59%	Australia: ASE	+17%
7	Taiwan: TWSA	+0.59	UK: FTSE	12.5	France: CAC	+55%	India: SENSEX	+16%
8	HK: Hang Seng	+0.50	Italy: MIB	12.7	UK: FTSE	+48%	US: S&P 500	+16%
9	Russia: MICEX	+0.43	Germany: DAX	14.1	Germany: DAX	+48%	China: Shanghai SE	+12%
10	Canada: TSX	+0.42	Taiwan: TWSA	14.4	Japan: Nikkei	+46%	France: CAC	+12%
11	Germany: DAX	+0.42	Spain: IBEX	14.9	Canada: TSX	+44%	Japan: Nikkei	+10%
12	China: Shanghai SE	+0.34	Indonesia: JCI	15.0	Italy: MIB	+40%	Taiwan: TWSA	+8%
13	Spain: IBEX	+0.33	Canada: TSX	15.8	US: S&P 500	+37%	Korea: KOSPI	+8%
14	Japan: Nikkei	+0.18	France: CAC	16.3	Indonesia: JCI	+35%	Canada: TSX	+3%
15	Korea: KOSPI	+0.08	Australia: ASE	16.8	Korea: KOSPI	+25%	UK: FTSE	+2%
16	France: CAC	+0.02	Netherlands: AEX	17.2	India: SENSEX	+21%	Turkey: Istanbul	+2%
17	Netherlands: AEX	-0.19	Japan: Nikkei	17.3	Turkey: Istanbul	+21%	Brazil: Bovespa	+1%
18	India: SENSEX	-0.37	US: S&P 500	21.0	China: Shanghai SE	+12%	Italy: MIB	-1%
19	US: S&P 500	-0.61	India: SENSEX	21.6	HK: Hang Seng	-20%	Spain: IBEX	-3%
	US, by style		US, by style		US, by style		US, by style	
1	S&P Smallcap	+1.61	S&P 500 Value	16.6	S&P Smallcap	+81%	S&P Midcap	+29%
2	S&P Midcap	+0.96	S&P Smallcap	17.1	S&P Midcap	+57%	S&P Smallcap	+23%
3	S&P 500 Value	-0.02	S&P Midcap	17.8	S&P 500 Value	+41%	S&P 500 Growth	+19%
4	S&P 500	-0.61	S&P 500	21.0	S&P 500	+37%	S&P 500	+16%
5	S&P 500 Growth	-1.09	S&P 500 Growth	27.4	S&P 500 Growth	+32%	S&P 500 Value	+15%
	US, by sector		US, by sector		US, by sector		US, by sector	
1	Energy	+0.82	Financial	13.7	Energy	+218%	Energy	+29%
2	Financial	+0.53	Energy	14.0	Consumer Disc	+78%	Materials	+24%
3	Materials	+0.51	Materials	17.4	Industrial	+70%	Consumer Disc	+23%
4	Consumer Stap	+0.26	Health Care	17.5	Materials	+65%	Industrial	+22%
5	Health Care	-0.10	Utilities	19.4	Communications	+38%	Info Tech	+19%
6	Utilities	-0.12	Communications	20.6	Info Tech	+32%	Communications	+18%
7	Industrial	-0.61	Consumer Stap	20.8	Financial	+22%	Consumer Stap	+11%
8	Communications	-0.68	Industrial	22.3	Health Care	+14%	Financial	+9%
9	Consumer Disc	-0.90	Info Tech	26.4	Consumer Stap	+13%	Utilities	+7%
10	Info Tech	-1.01	Consumer Disc	29.0	Utilities	+3%	Health Care	+5%

Source: Bloomberg, TrendMacro calculations

Equity risk premium: forward earnings yield minus bond yield, July 2007 to current

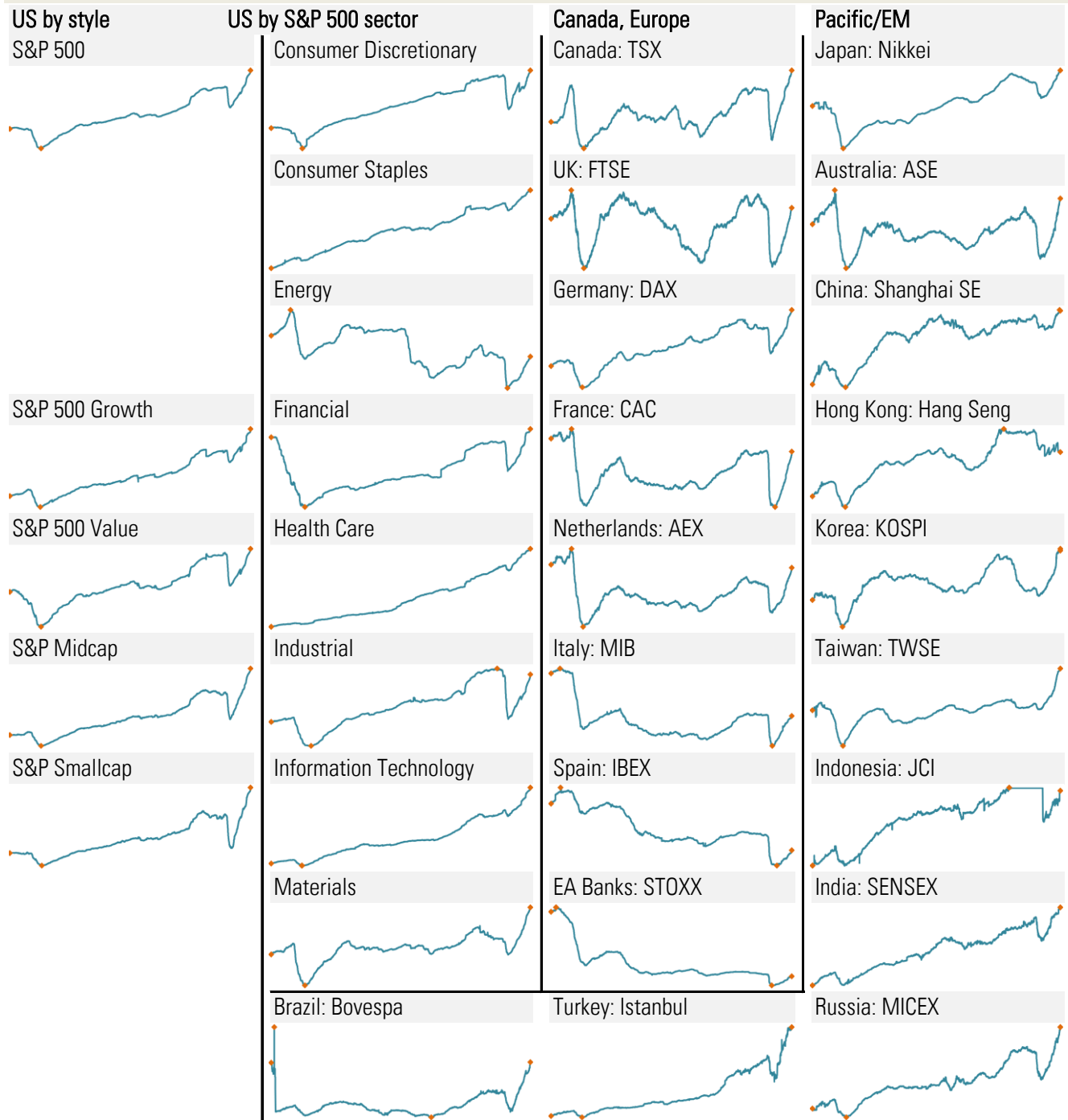
Standard deviations from mean • First, High, Low, Last



Source: Bloomberg, TrendMacro calculations

EPS: forward consensus, bottom-up, July 2007 to current

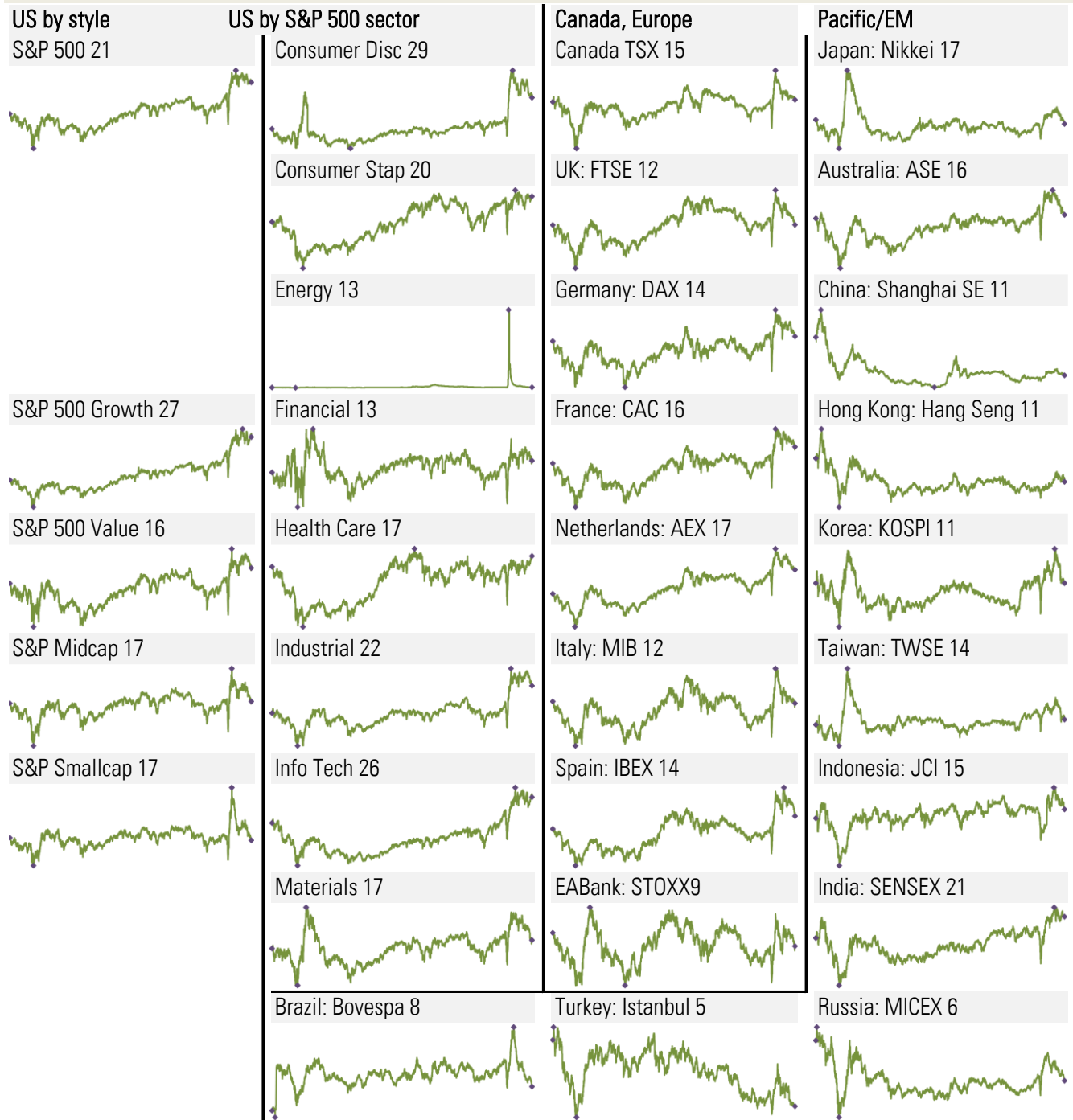
• First, High, Low, Last



Source: Bloomberg, TrendMacro calculations

P/E ratio: forward consensus, bottom-up, July 2007 to current

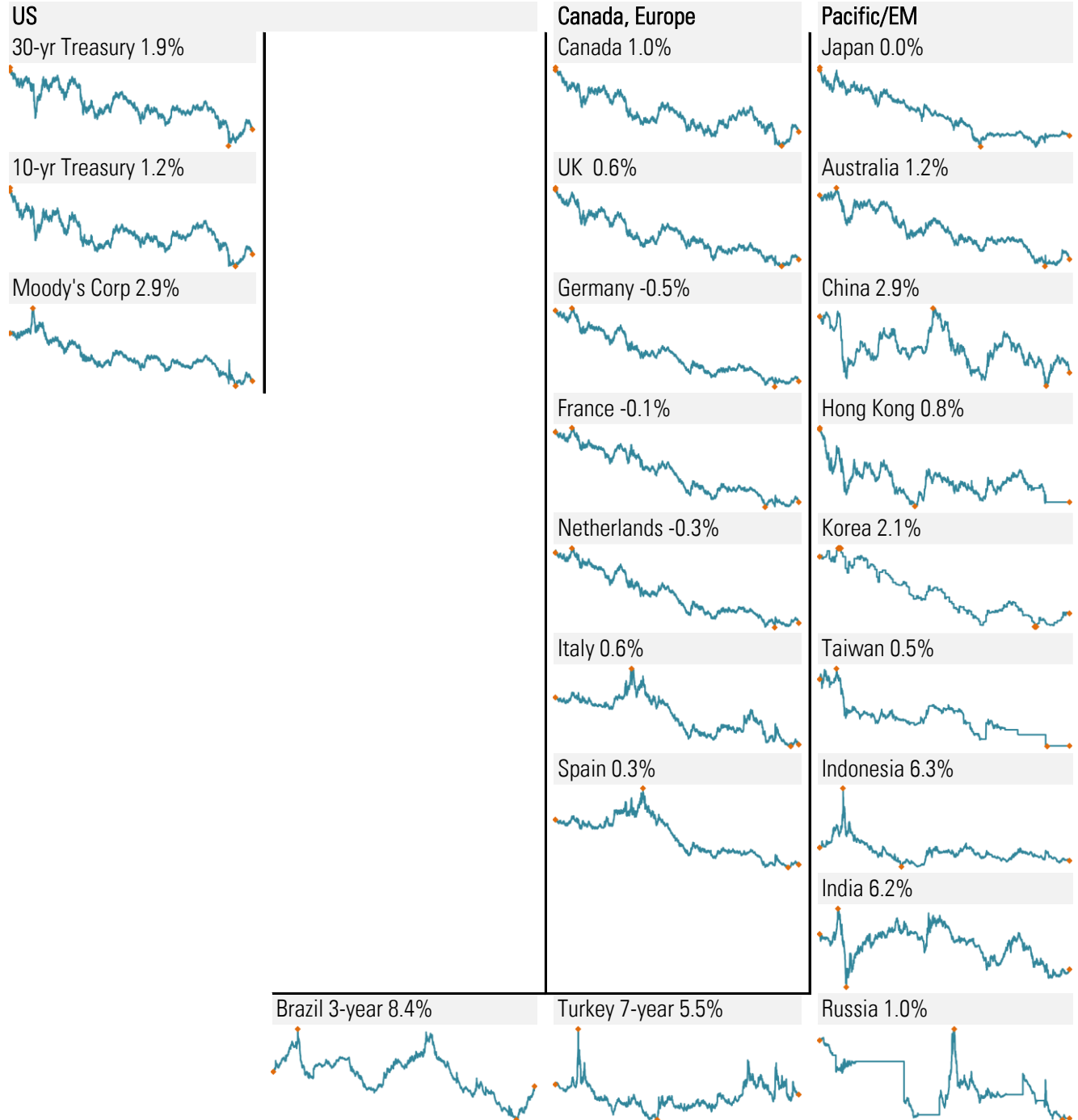
• First, High, Low, Last



Source: Bloomberg, TrendMacro calculations

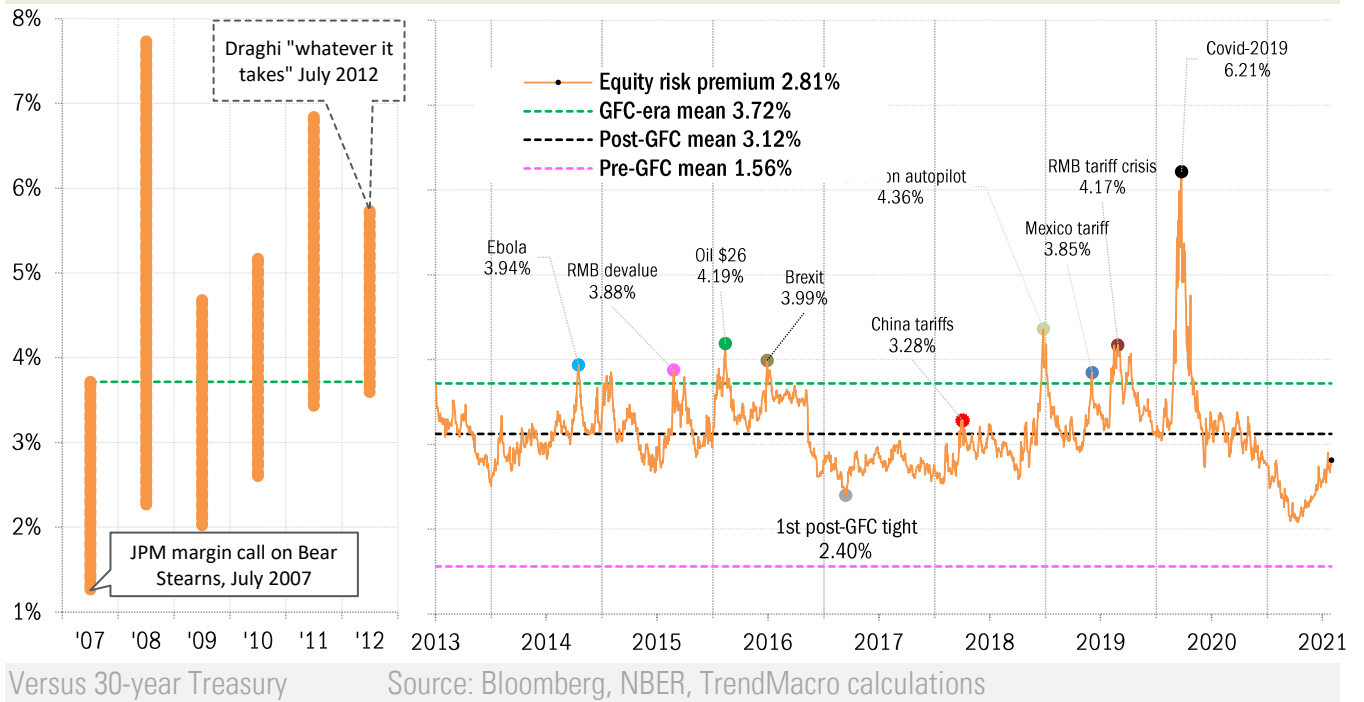
Benchmark bond yields, July 2007 to current

10-year government, unless indicated • First, High, Low, Last

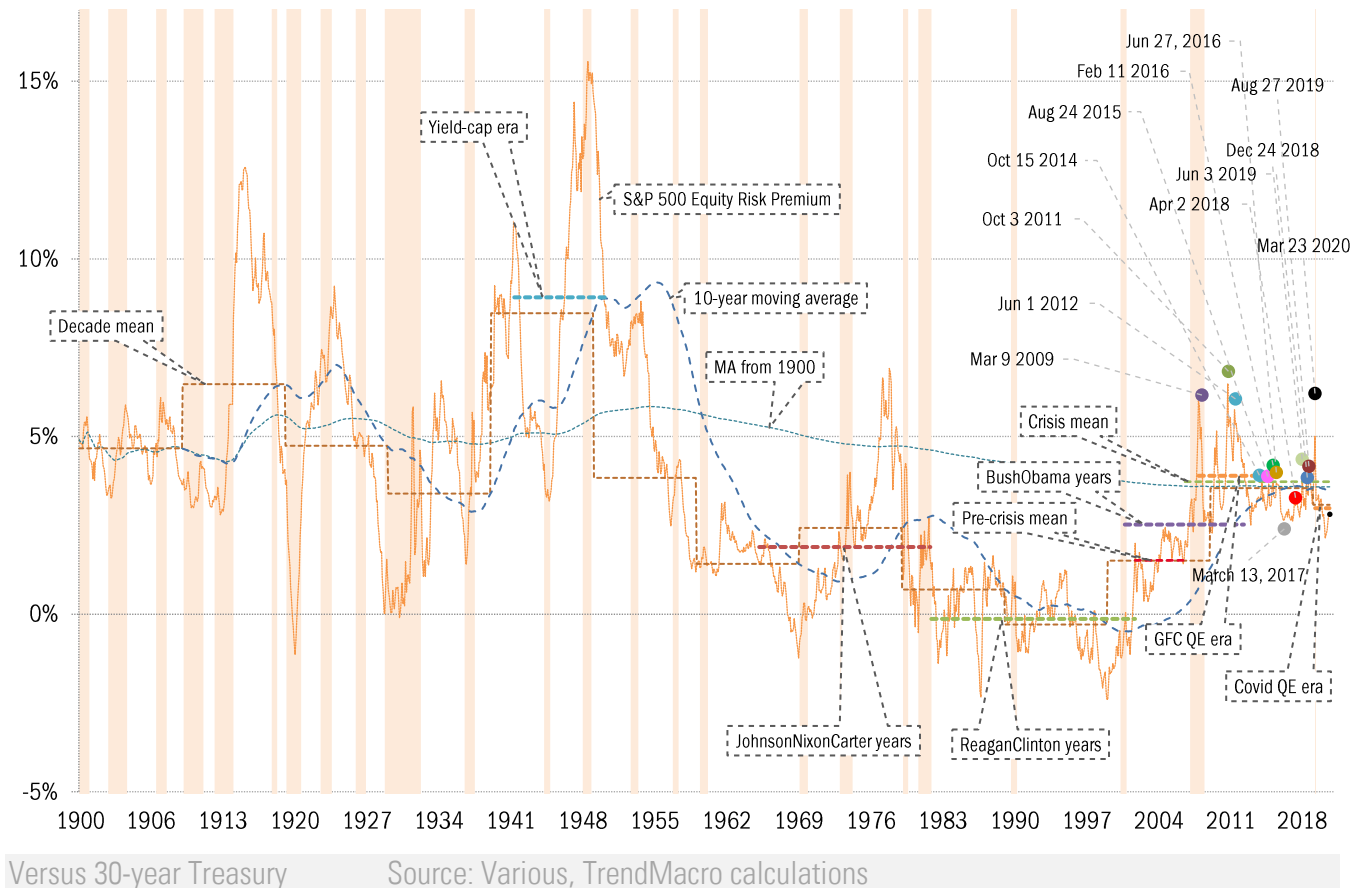


Source: Bloomberg, TrendMacro calculations

Daily S&P 500 equity risk premium in the era of crises

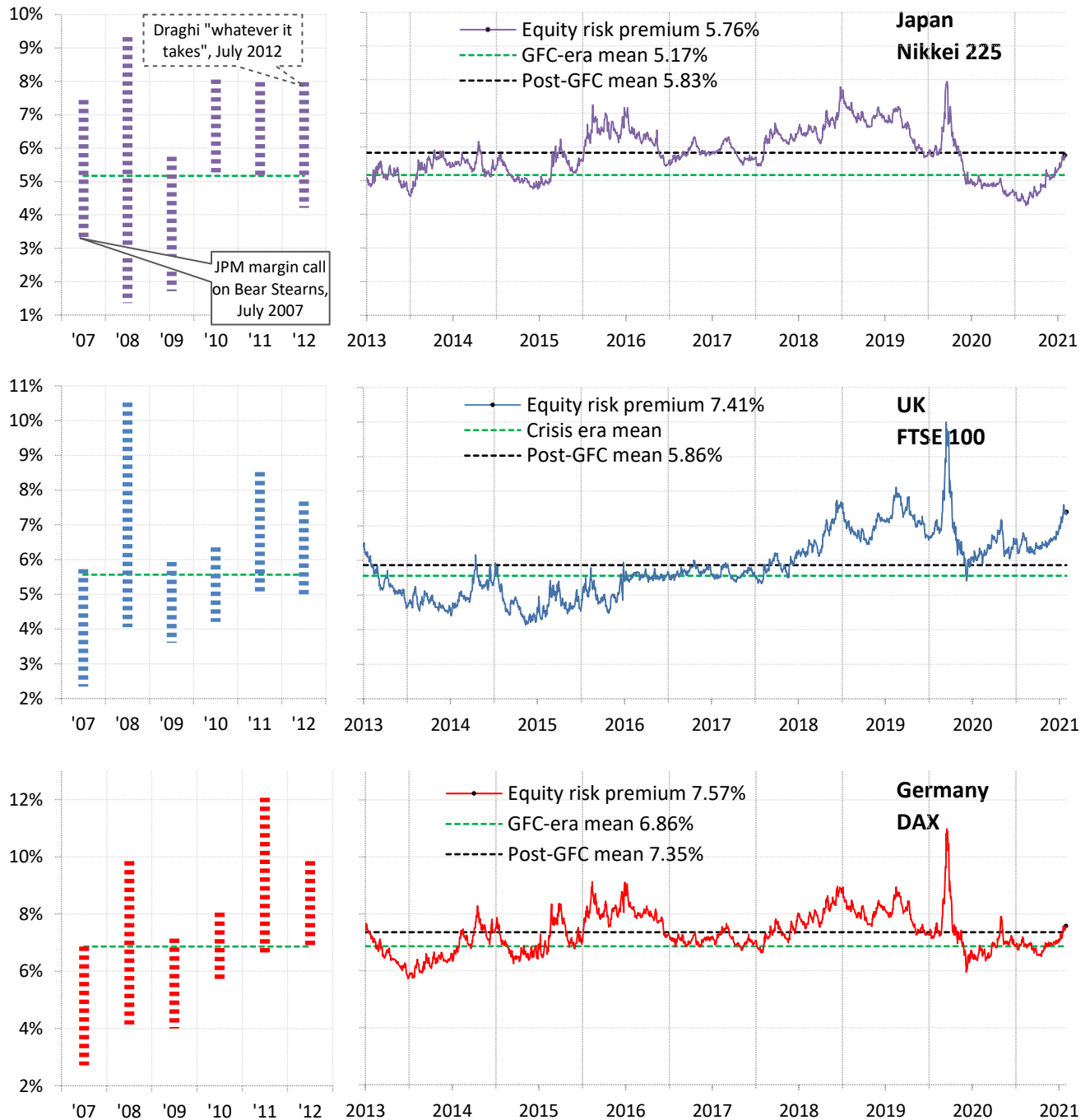


A century-plus of the monthly S&P 500 equity risk premium



Close-up: Global equity risk premia in the crisis, and its aftermath

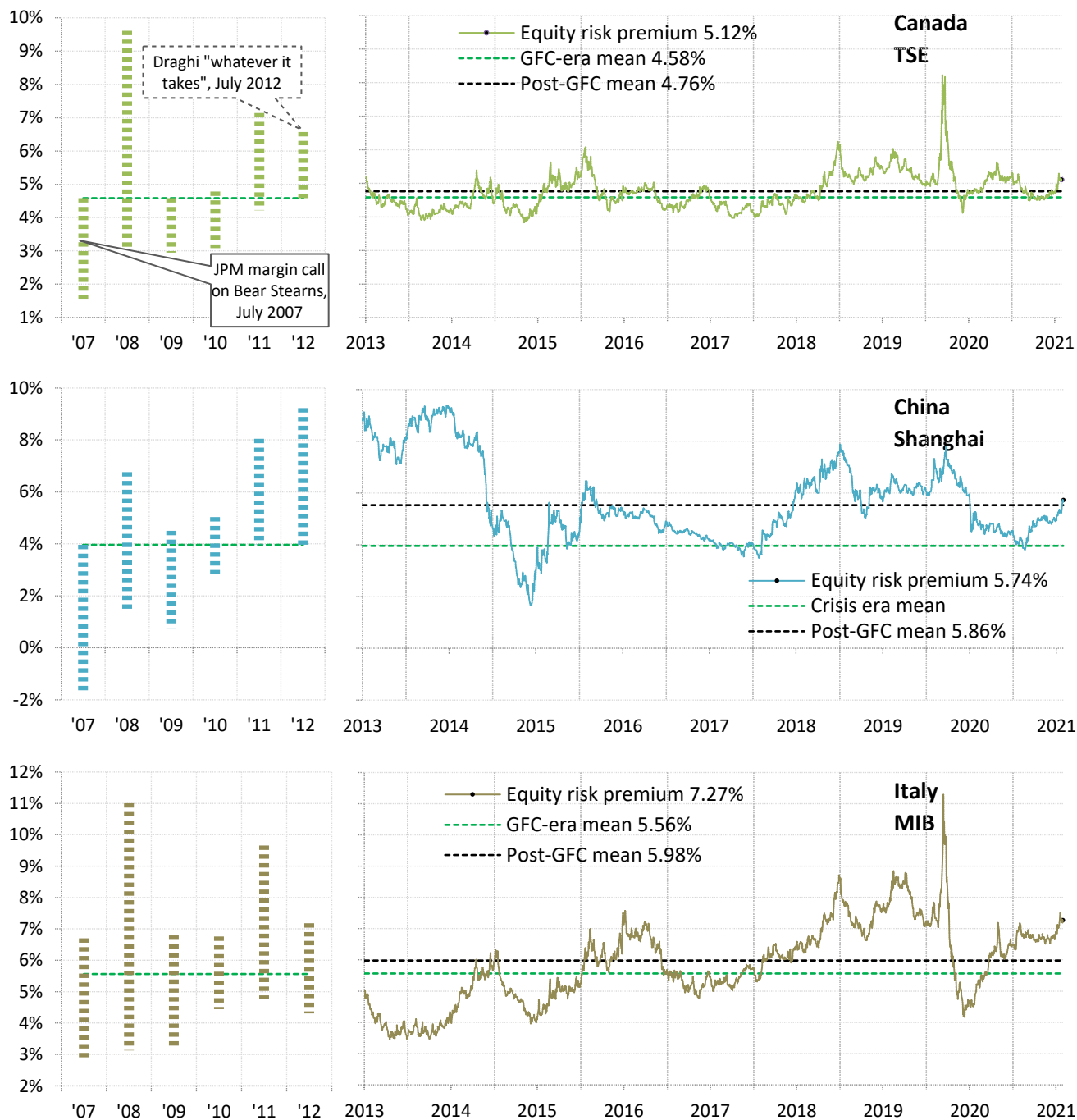
July-to-July range (left panel), daily from July 2013 (right panel)



Source: Bloomberg, TrendMacro calculations

Close-up: Global equity risk premia in the crisis, and its aftermath

July-to-July range (left panel), daily form July 2013 (right panel)






Source: Bloomberg, TrendMacro calculations

Data Insights: Global PMI



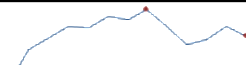
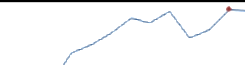
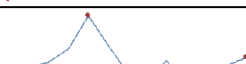
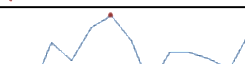


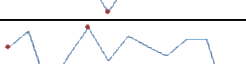

Friday, December 3, 2021

Worldwide aggregate data: at a glance *Indices not updated at time of publication are highlighted*

Manu	Nov	Prev	13-month history	Serv	Nov	Prev	13-month history	Comp	Nov	Prev	13-month history
Index	54.2	54.3		Index	55.6	55.6		Index	54.8	54.5	



Source: JPMorgan, TrendMacro calculations

US data: at a glance

Manufacturing	Nov	Prev	13-month history	Services	Nov	Prev	13-month history
Index	61.1	60.8		Index	69.1	66.7	
Prices paid	82.4	85.7		Prices paid	82.3	82.9	
Employment	53.3	52.0		Employment	56.5	51.6	
Inventories	56.8	57.0		Inventories	48.2	42.2	
Orders	61.5	59.8		Orders	69.7	69.7	

Source: Institute of Supply Management, TrendMacro calculations

Japan data: at a glance

Manufacturing	Nov	Prev	13-month history	Services	Nov	Prev	13-month history
Index	54.5	53.2		Index	53.0	50.7	

Source: Markit/Nomura, TrendMacro calculations

For more information contact us:

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Thomas Demas: 704 552 3625 tdemas@trendmacro.com

Europe data: at a glance

Manufacturing	Last	Prev	13-month history	Services	Last	Prev	13-month history
Eurozone Nov	58.4	58.3		Eurozone Nov	55.9	54.6	
UK Nov	58.1	57.8		UK Nov	58.5	59.1	
Germany Nov	57.4	57.8		Germany Nov	52.7	52.4	
France Nov	55.9	53.6		France Nov	57.4	56.6	
Italy Nov	62.8	61.1		Italy Nov	55.9	52.4	
Spain Nov	57.1	57.4		Spain Nov	59.8	56.6	
Ireland Nov	59.9	62.1		Ireland Nov	59.3	63.4	
Netherlands Nov	60.7	62.5					
Austria Nov	58.1	60.6					
Greece Nov	58.8	58.9					
Czech Rep Nov	57.1	55.1					




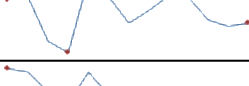
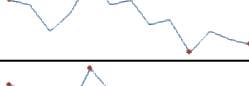


Source: Markit, Various TrendMacro calculations

Eastern Europe data: at a glance

Manufacturing	Last	Prev	13-mo history	Services	Last	Prev	13-mo history
Russia Nov	51.7	51.6		Russia Nov	47.1	48.8	
Poland Nov	54.4	52.0					
Turkey Nov	53.8	51.2					

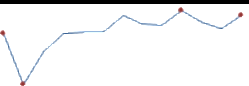



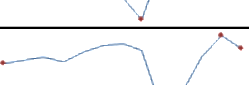
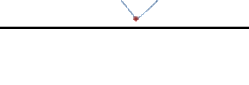
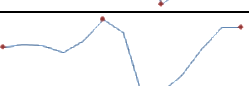
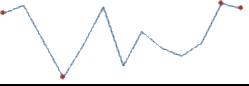


Source: Markit, TrendMacro calculations

China data: at a glance

Manufacturing	Nov	Prev	13-month history	Services	Nov	Prev	13-month history
China	50.1	49.2		China	52.3	52.4	
Prices paid	52.9	72.1					
Employment	48.9	48.8		Employment	47.3	47.5	
Orders	49.4	48.8		Orders	48.9	49.0	

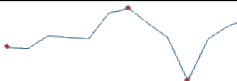
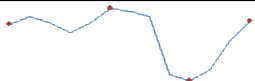
Source: China Federation of Logistics and Purchasing, TrendMacro calculations

Asia data: at a glance

Manufacturing	Last	Prev	13-mo history	Services	Last	Prev	13-mo history
Hong Kong Nov	52.6	50.8					
Taiwan Nov	54.9	55.2					
S. Korea Nov	50.9	50.2					
Vietnam Nov	52.2	52.1					
India Nov	57.6	55.9		India Nov	58.1	58.5	
Indonesia Nov	53.9	57.2					
Malaysia Nov	52.3	52.2					
Thailand Nov	50.6	50.9					
Phillipines Nov	51.7	51					

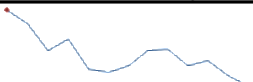
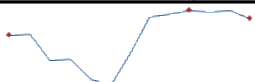

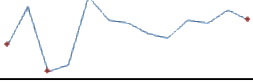
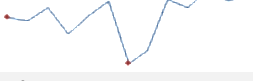
Source: Markit, Nikkei, TrendMacro calculations

Australia data: at a glance

Manufacturing	Nov	Prev	13-month history	Services	Nov	Prev	13-month history
Index	59.2	58.2		Index	55.7	51.8	

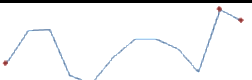

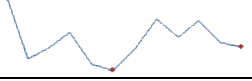

Source: Commonwealth Bank, TrendMacro calculations

Americas data: at a glance

Manufacturing	Last	Prev	13-mo history	Services	Last	Prev	13-mo history
Brazil Nov	49.8	51.7		Brazil Nov	53.6	54.9	
Mexico Nov	49.4	49.3					
Canada Nov	57.2	57.7					
Colombia Nov	54.9	54					

Source: Markit, TrendMacro calculations

Middle East/Africa data: at a glance

Manufacturing	Last	Prev	13-mo history
Saudi Arabia Oct	57.7	58.6	
UA Emirates Oct	55.7	53.3	
Egypt Oct	48.7	48.9	
S. Africa Nov	51.7	48.6	

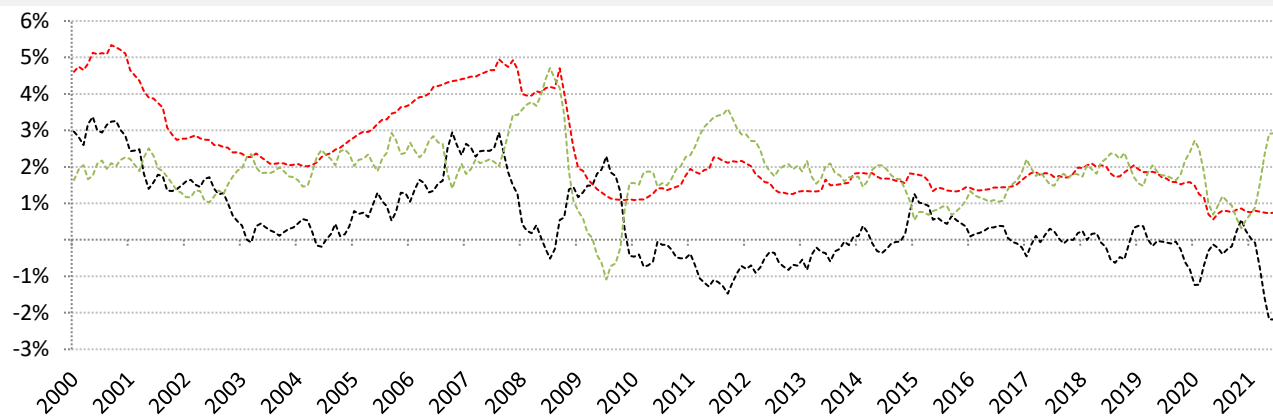
Source: Markit, TrendMacro calculations

Data Insights: Global Real Rates and Long-term Yields

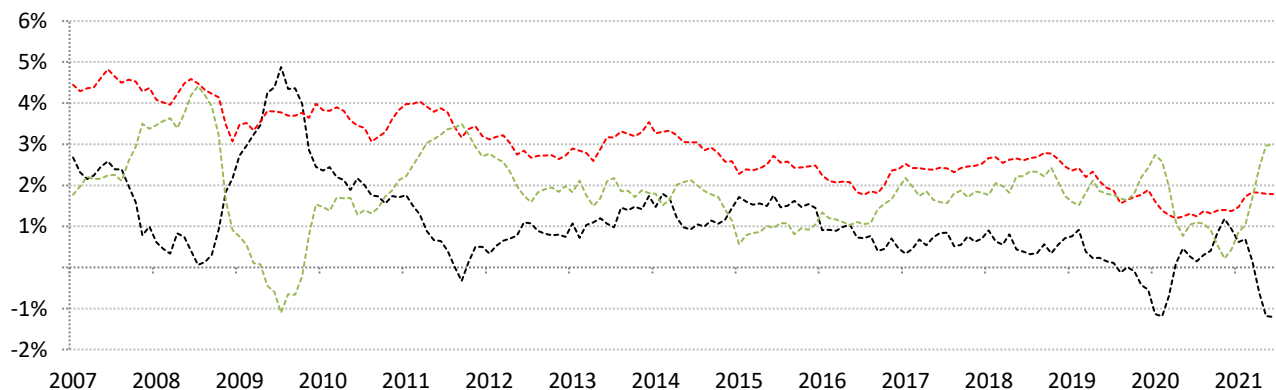
Friday, June 18, 2021

The world-wide average inflation-adjusted cost of debt

US, Euro Area, Japan, UK, Brazil, India and China rates and yields weighted by nominal GDP at official USD
(For 10-year, Euro Area is capital-key weighted average of DE, FR, IT, ES, ND, BE)



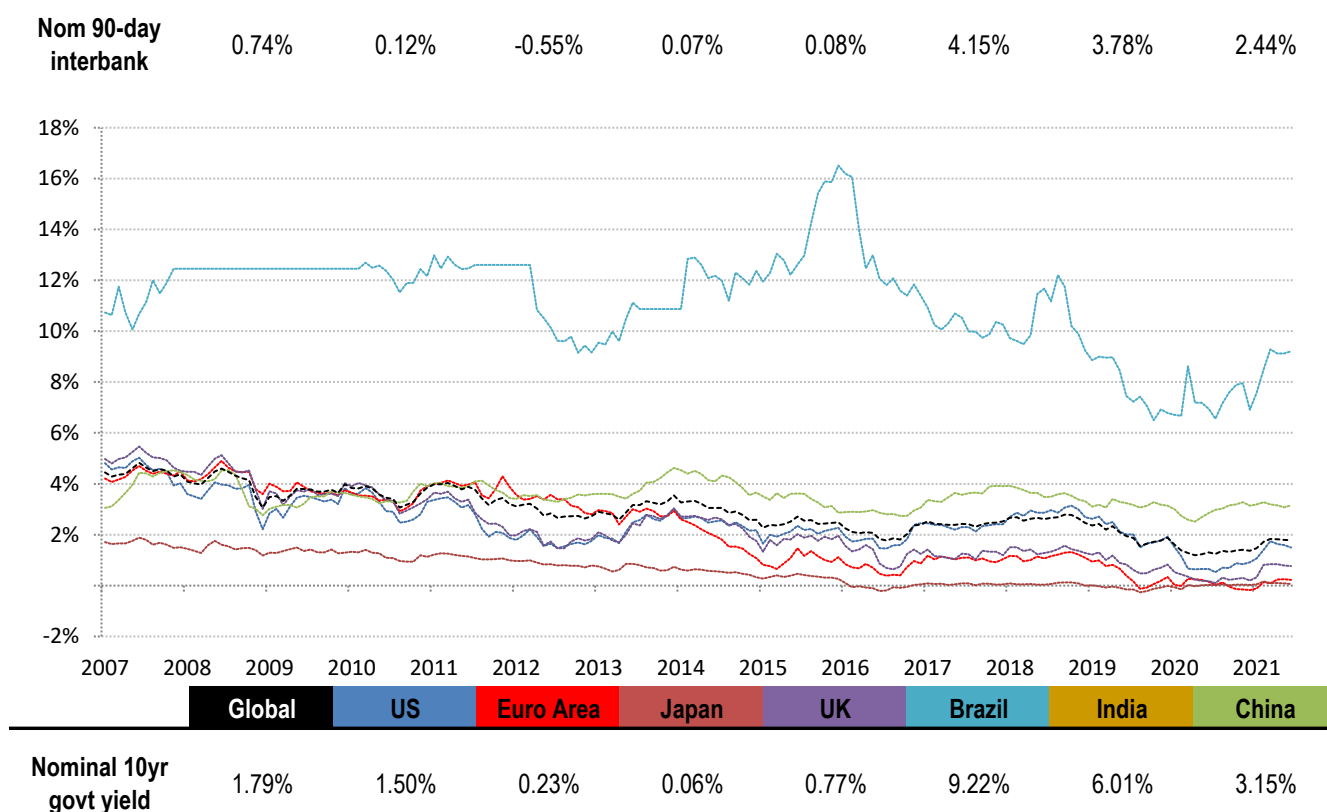
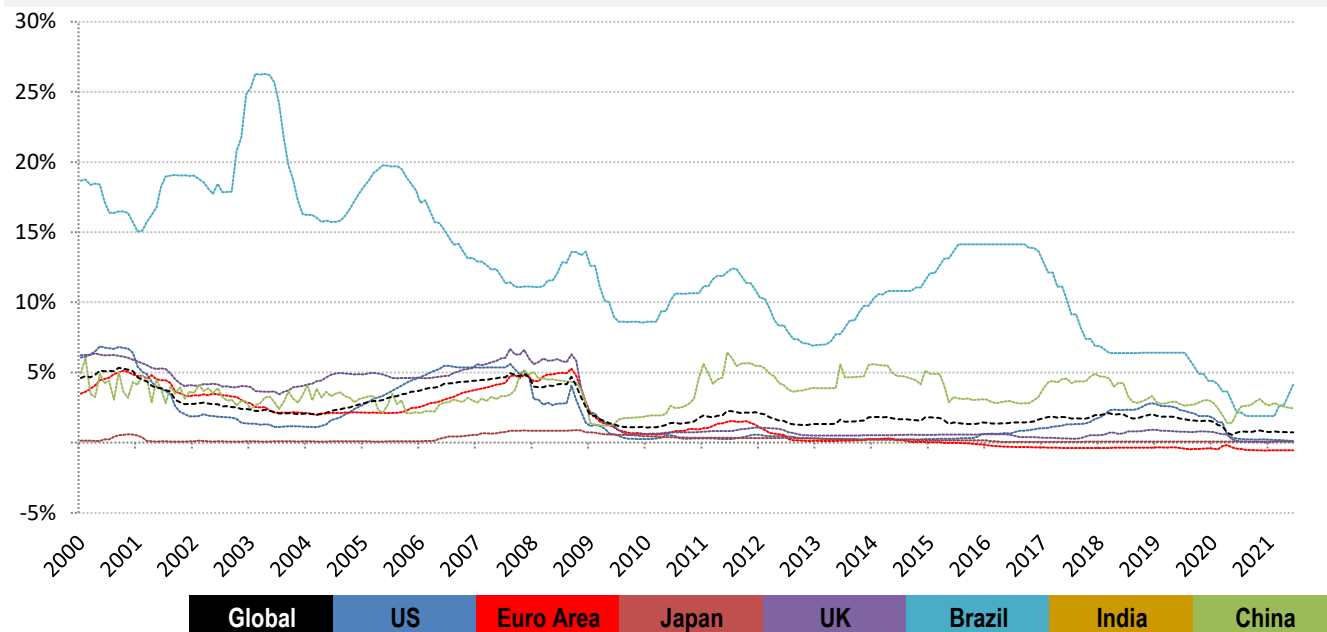
	Global	US	Euro Area	Japan	UK	Brazil	India	China
Nom 90-day interbank	0.74%	0.12%	-0.55%	0.07%	0.08%	4.15%	3.78%	2.44%
less	CPI 2.93%	5.00%	2.00%	-0.10%	2.10%	8.90%	0.00%	1.40%
equals	Real rate -2.19%	-4.88%	-2.55%	0.17%	-2.02%	-4.75%	10.31%	1.04%



	0	US	Euro Area	Japan	UK	Brazil	India	China
Nominal 10yr govt yield	1.79%	1.50%	0.23%	0.06%	0.77%	9.22%	6.01%	3.15%
less	CPI 2.93%	5.00%	2.00%	-0.10%	2.10%	8.90%	0.00%	1.40%
equals	Real yield -1.20%	-3.50%	-2.17%	0.16%	-1.33%	0.32%	7.76%	1.75%

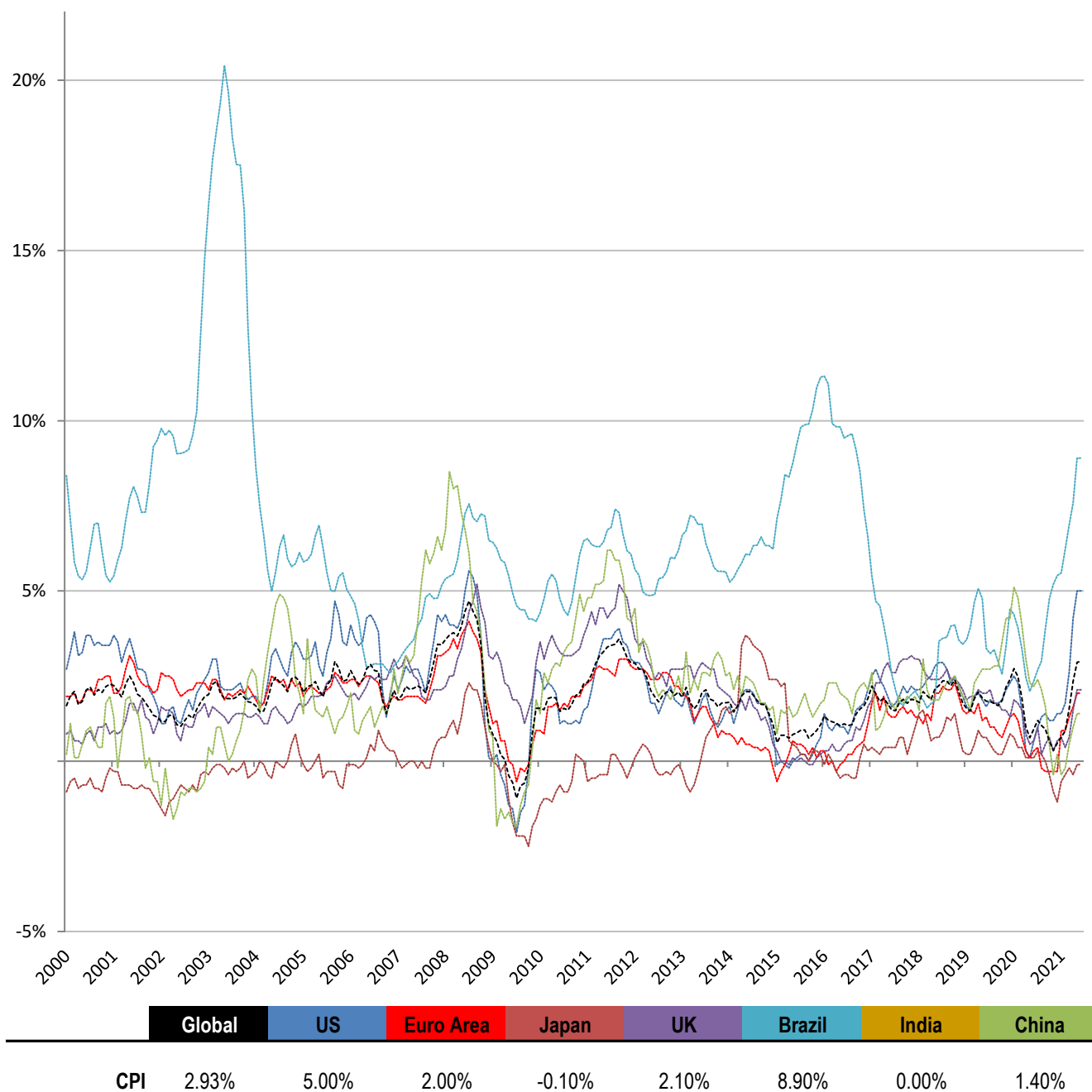
Source: Respective data bureaus, TrendMacro calculations

Nominal rates and yields



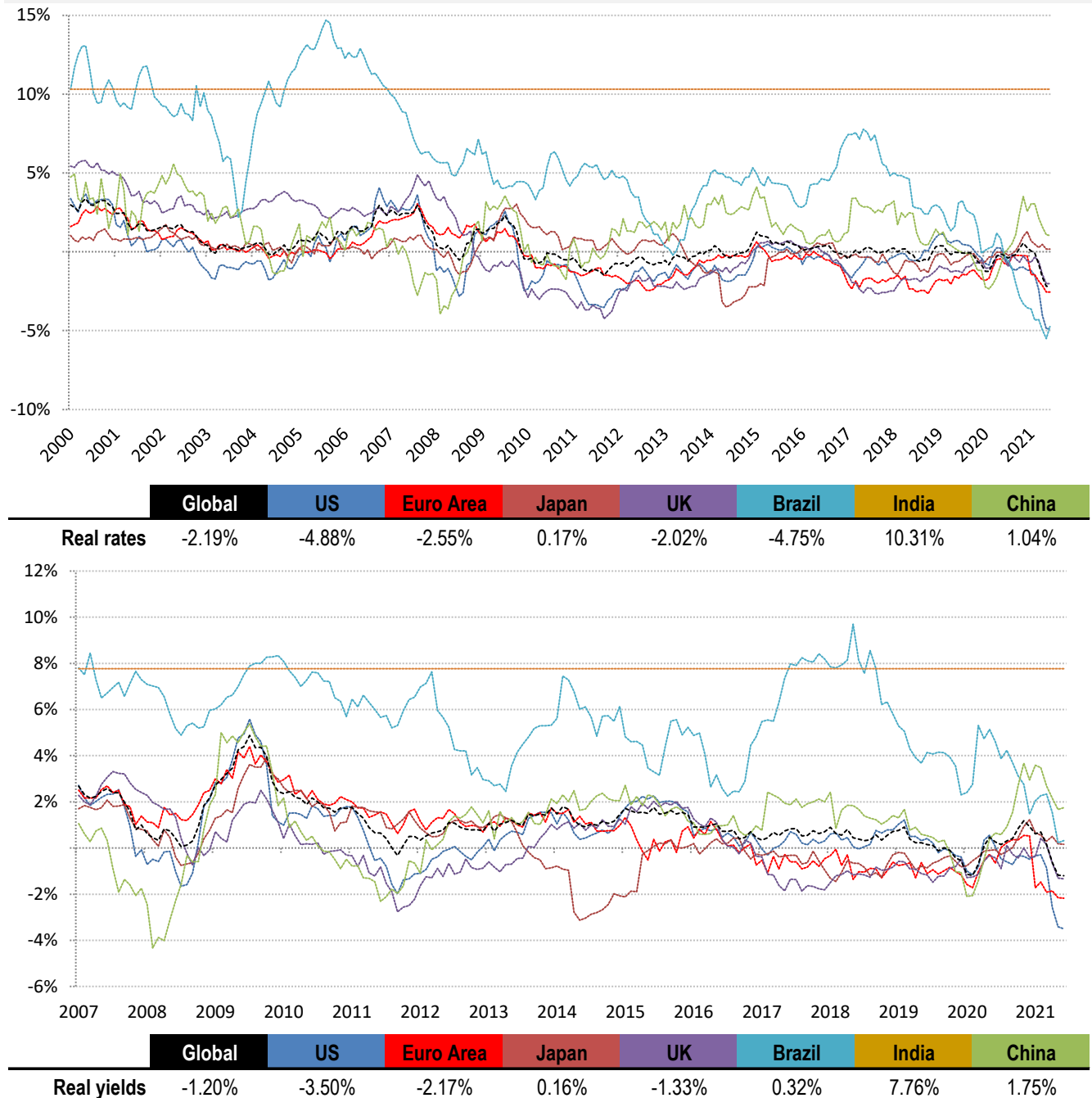
Source: Bloomberg, TrendMacro calculations

Inflation: Year-over-year change in headline consumer prices



Source: Respective data bureaus, TrendMacro calculations

Real rates and yields: nominal minus YOY headline CPI change

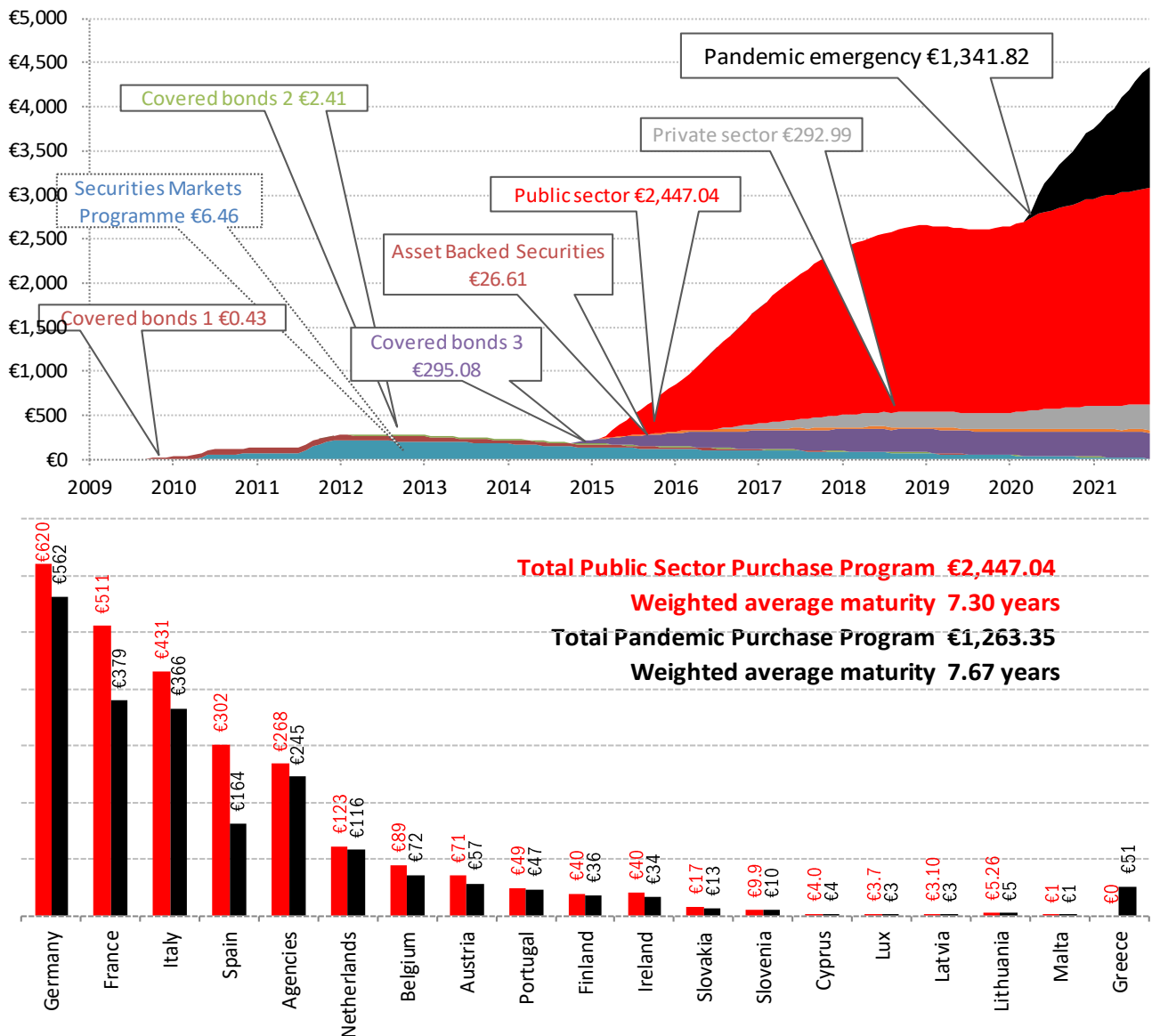


Source: Bloomberg, respective data bureaus, TrendMacro calculations

Data Insights: Euro Area Recovery Monitor

Thursday, October 28, 2021

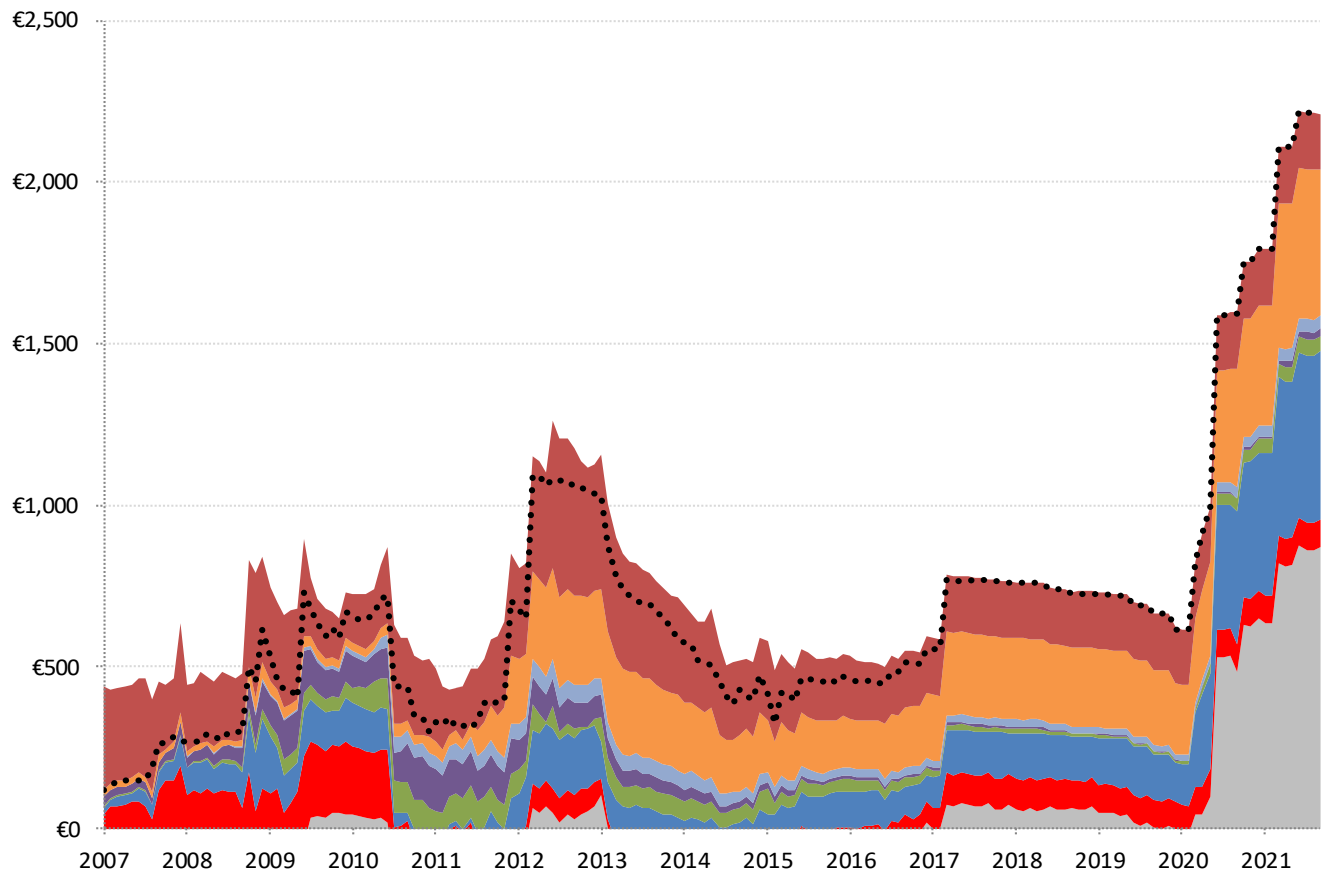
Euro-QE: its *baaack!* (€ billions)



Source: ECB, TrendMacro calculations

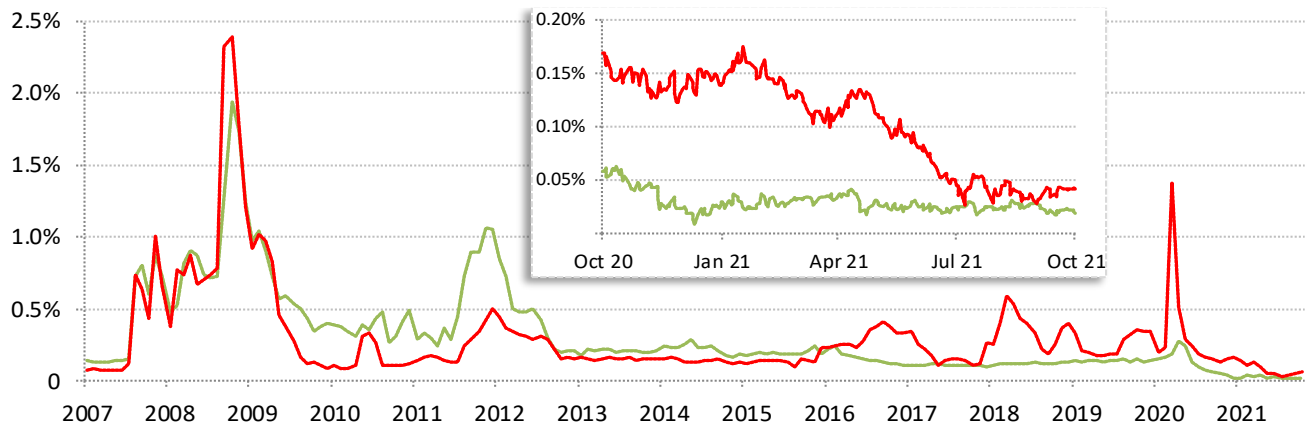
Banking system dependency: borrowing from the ECB (€ billions)

--- Total LTRO Spain Italy Portugal Ireland Greece France Germany Other



Source: ECB, National central banks, TrendMacro calculations

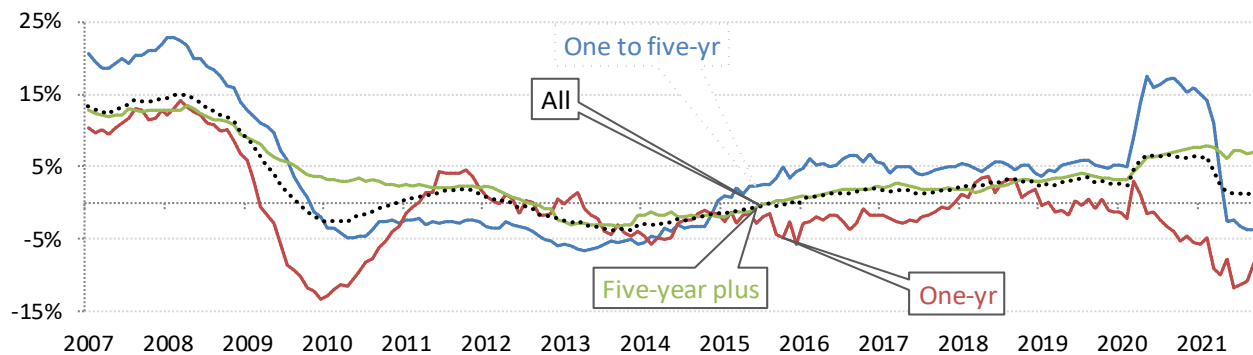
Bank stability: 90-day LIBOR/OIS spreads — USD — EUR



Source: Bloomberg, TrendMacro calculations

The credit drought: loans to non-financial businesses (YOY growth)

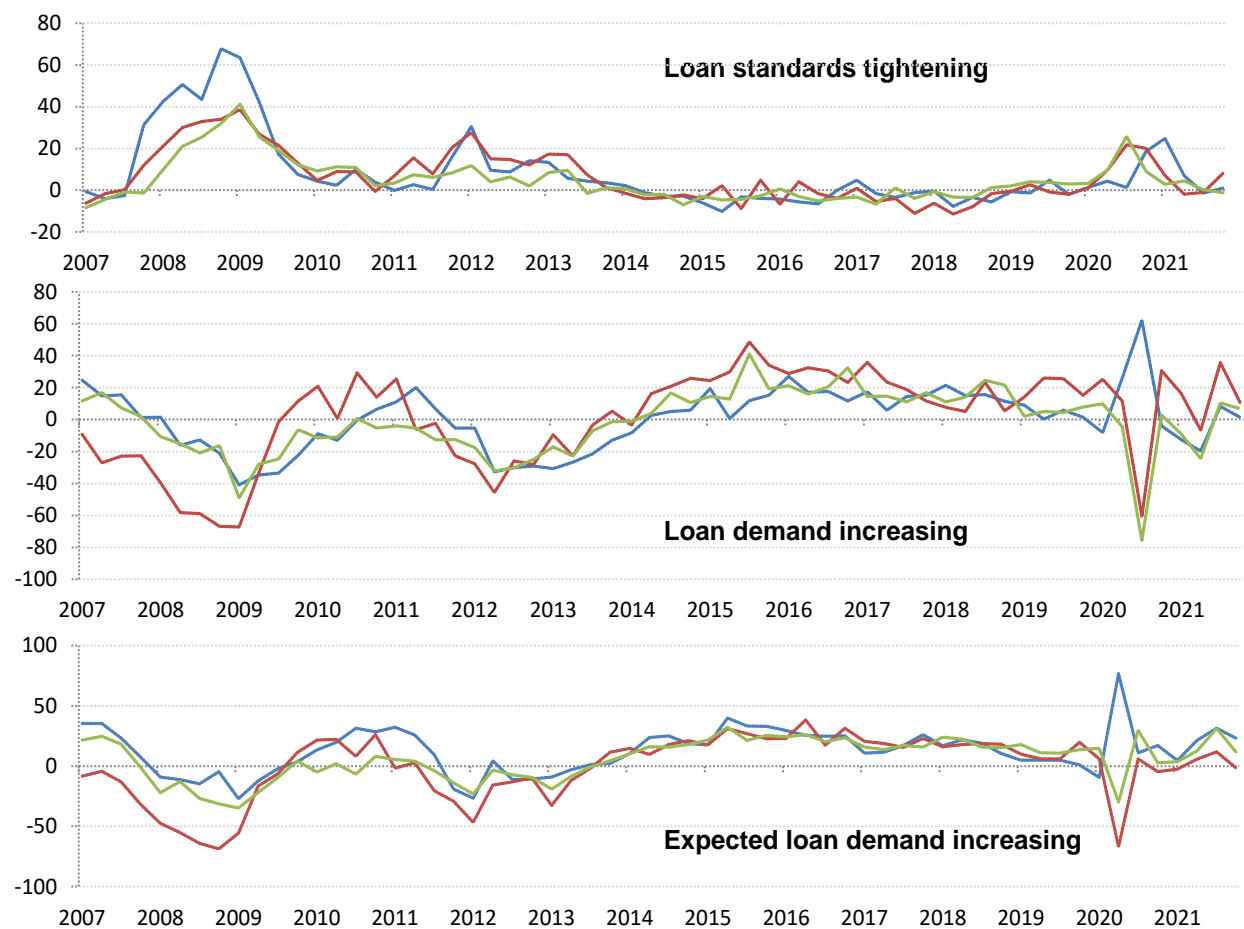
— Loans to 1 year — Loans 1-5 years — Loans 5 years plus ... Total



Source: ECB, TrendMacro calculations

Supply and demand for lending: ECB Bank Survey

Net number of banks reporting for: — Enterprises — Home mortgage — Consumer



Source: ECB, TrendMacro calculations

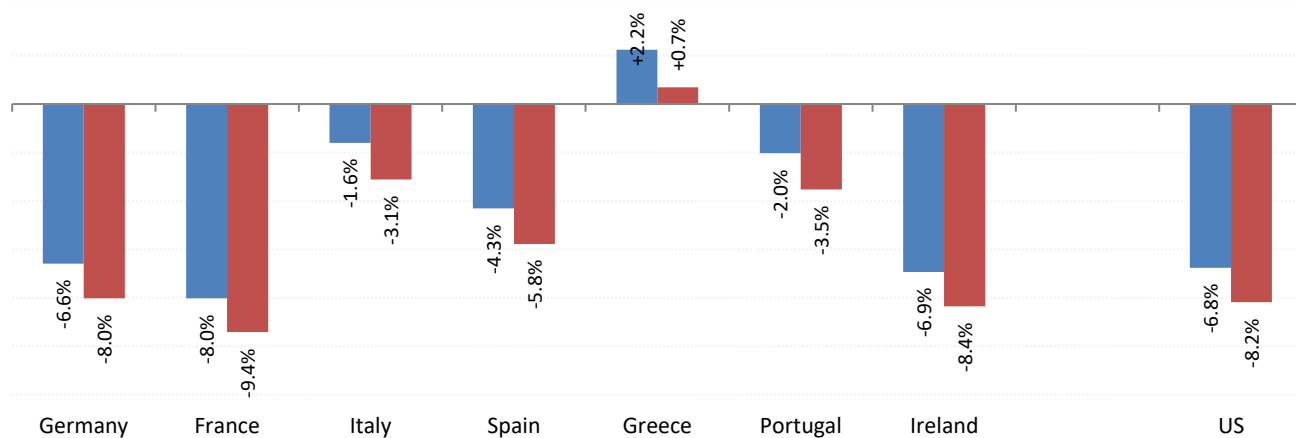
Sovereign stress monitor: 10-year bond spreads

· High · Low · Last



10-year sovereign bond total returns, trailing 12-months

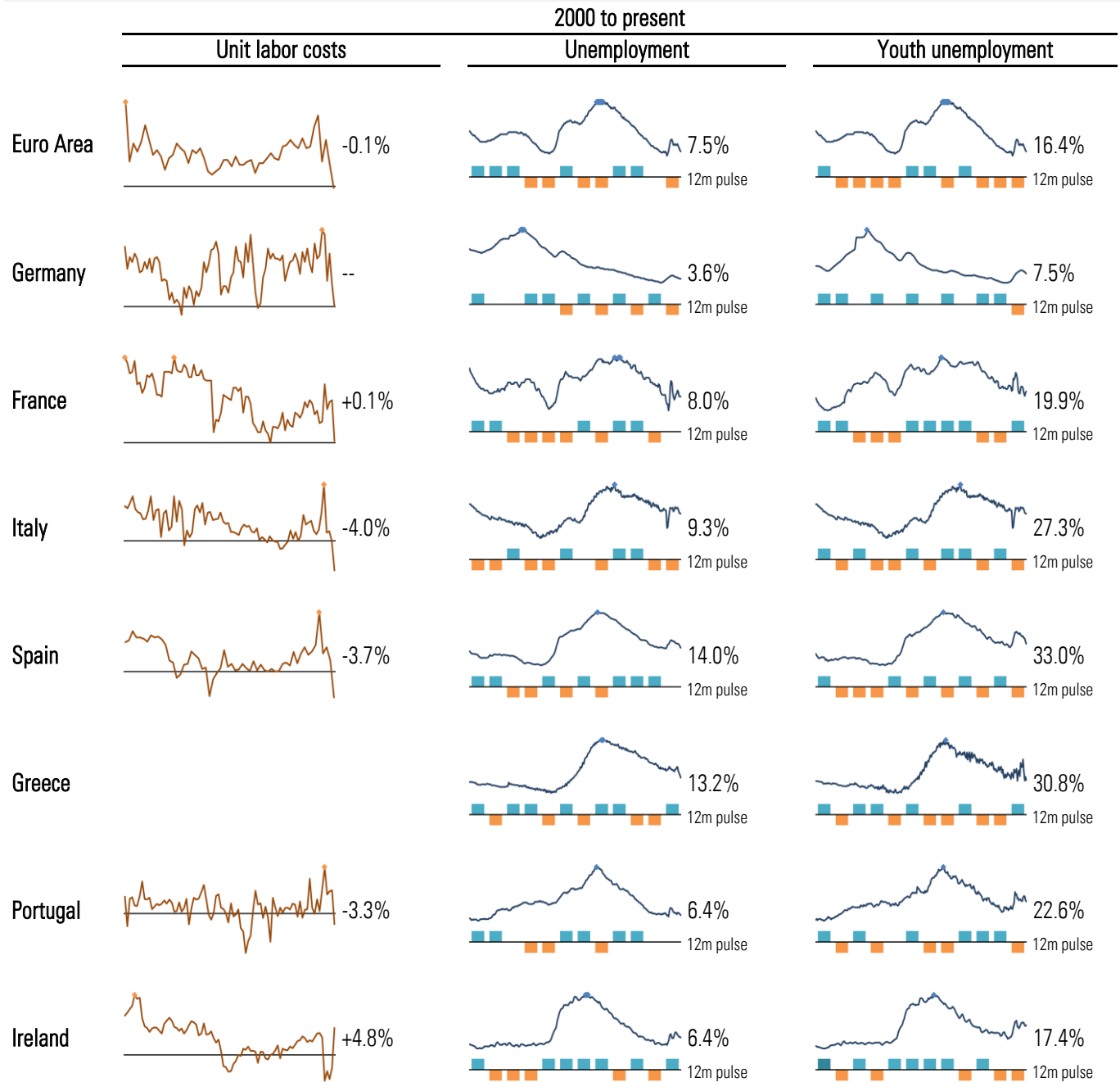
■ EUR ■ USD



Source: Bloomberg, TrendMacro calculations

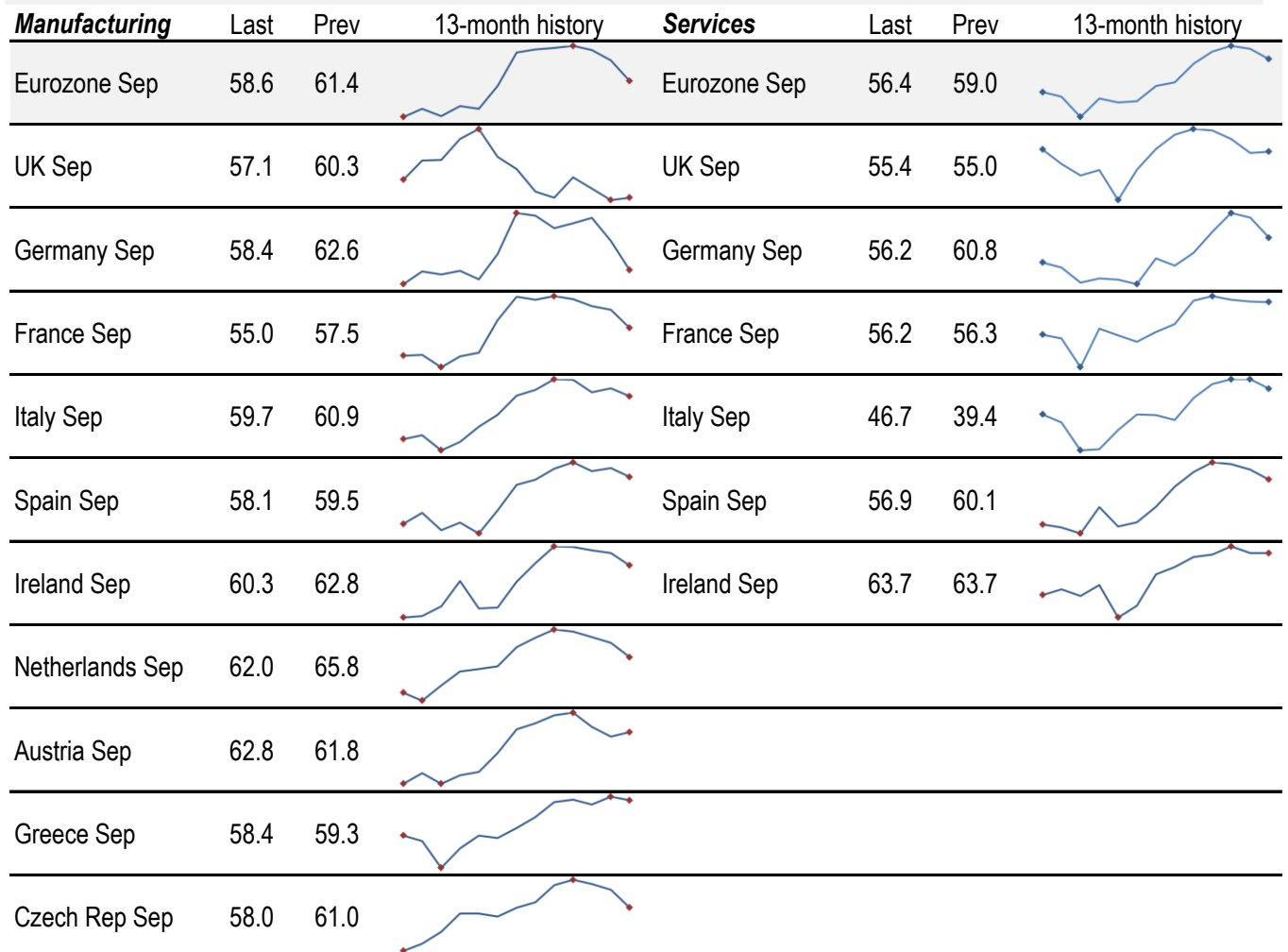
Labor market in intensive care

ULC: Nominal, quarterly YOY UE: High 12m pulse: monthly ■ improvement or ■ worsening in rate of change



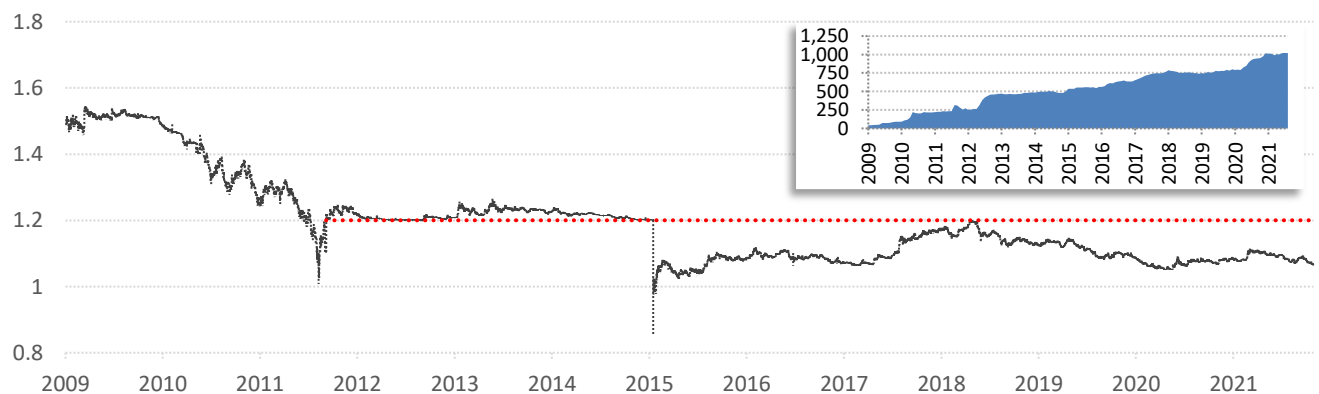
Source: Eurostat, TrendMacro calculations

Purchasing Manager Indices



Source: Markit, TrendMacro calculations

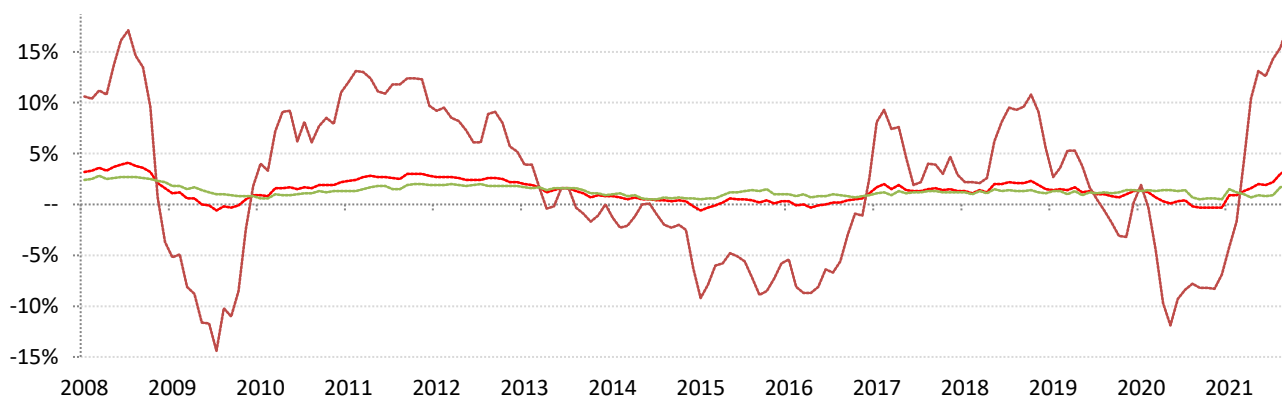
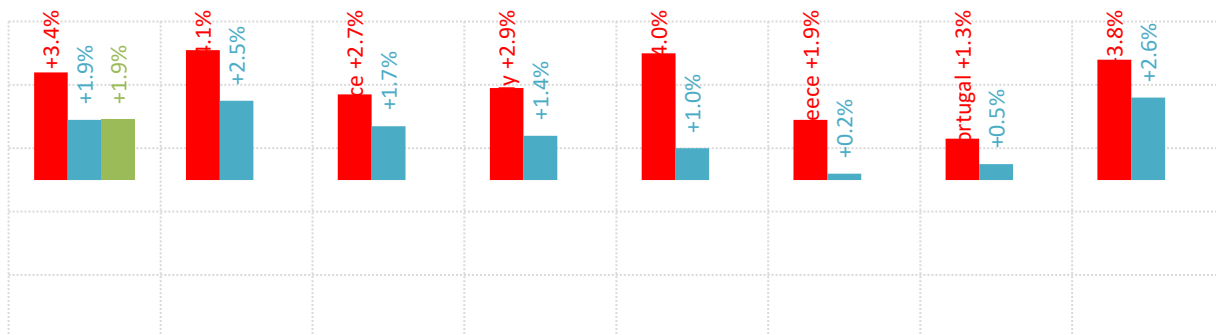
Regional currency flight — Euro vs Swiss franc — Swiss National Bank floor — SNB FX reserves



Source: Bloomberg, TrendMacro calculations

Euro area consumer inflation, year on year

Country: ■ Headline ■ Ex-food and energy ■ Ex-energy Euro area: — Headline — Energy — Ex-energy



Source: Eurostat, TrendMacro calculations

Draghi's old dashboard:

Swap-implied inflation expectations since "Whatever it takes"

— 5-year inflation-swap rate, 5 years forward



Source: Bloomberg, TrendMacro calculations